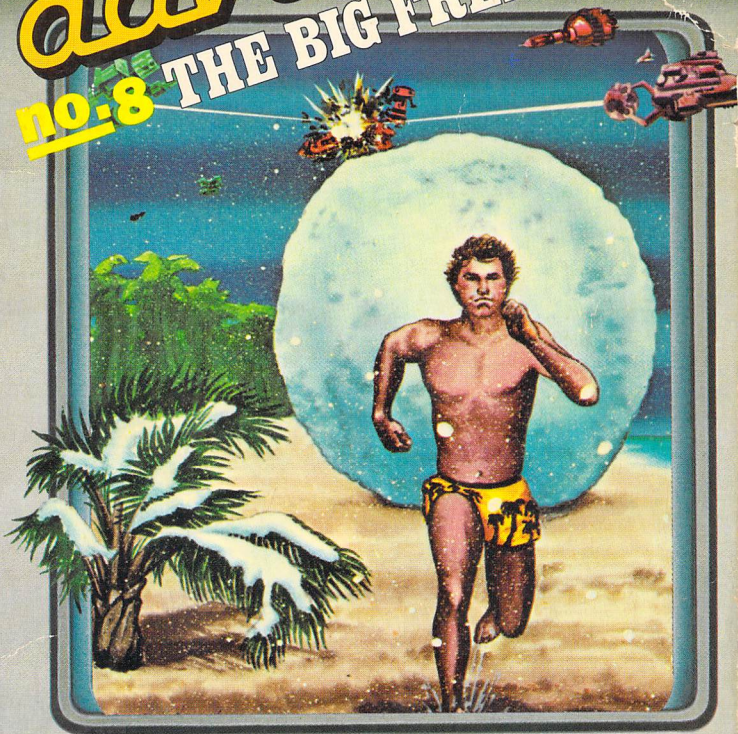


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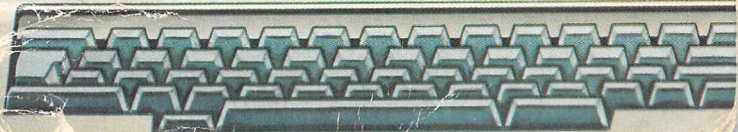
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Jean M. Favors



Micro Adventure™

#8

THE BIG FREEZE

by

Jean M. Favors

Programming by Susan M. Zakar

A Parachute Press Book



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01

Warning: The following information is crucial to the success of your mission. Read it carefully. It may save your life.

As a certified member of ACT (the Adventure Connection Team), your job, as always, is to defend the cause of good against evil. It won't be easy, because BRUTE (the Bureau of Random Unlawful Terror and Evil), the international organization bent on wreaking havoc throughout the world, will be fighting you every step of the way. Your computer expertise will be vital to this mission. So turn on your home system. Throughout this adventure you'll be called upon to program it to get the ACT team out of some really tough spots.

The text will tell you if the program will run as is on your computer. If it won't, consult the Reference Manual in the back of the book for modifications for your computer. Good luck. This message will be erased from memory in 30 seconds.

CHAPTER

1

Your portable radio is blasting out number nine on the Top 40, and the July sun beaming down on your back feels terrific. Lying half-asleep on a damp towel, you think about the hot dog stand just up the beach — you could use a snack while you're waiting for the rest of the gang to arrive. They were supposed to meet you for a surfing party half an hour ago. Could they have chickened out just because the weatherman predicted showers later on? Starting to get restless, you roll over so the other half of you can bake.

Suddenly you are peppered by a shower of grit. Sputtering, you glare up at the refreshment vendor leaning over you.

“Didn’t mean to kick sand in your face. Have some free hot chocolate to make up for it,” he apologizes, reaching up to retrieve a

styrofoam cup of steaming liquid from the pushcart behind him.

“No thanks.” You scramble to your feet, thinking that the man’s elevator is stuck between floors. Who needs hot chocolate when it’s 95 degrees in the shade?

The button on the six-foot intruder’s hat reads “Artie’s Colossal Tacos” and a closer glance makes you sure he’s a fruitcake — thermal underwear cuffs are sticking out of the sleeves of his red-striped jacket and he’s wearing earmuffs. “You can have some gum, too,” he adds, handing you a package.

He seems harmless enough, but you never know. A bit uneasy, you slip the pack of gum in the pocket of your shorts and look around for your friends — not a soul is in sight. “I’d better be going,” you tell him, but as you reach for your portable radio, a blast of cold air nearly slices you in half.

“We interrupt this program for a special bulletin.” The announcer’s voice cuts through the music with a squawk of static. “There have been reports of snow flurries all over the metropolitan area and —”

You snap off the radio midsentence. “Snow in July? Boy, some stations will say anything to boost their ratings,” you tell the vendor. Then something soft and icy touches your cheek. You look up at the sky incredulously. A few minutes ago it was a gorgeous, clear blue, but now it’s a moody gray.

“Sure you don’t want that chocolate now?” the salesman prompts. You’re so busy gulping down the steaming brew that you hardly notice that he’s leaving. “Good luck, Orion — you’re going to need it,” he calls back over his shoulder. “It’s 15 degrees out.”

How did he know my code name? you wonder while a king-sized shiver shakes your shoulders. The answer is not long in coming. As you glance down into the almost empty cup, your eyes nearly bulge out of your head — the last few drops of cocoa are sinking into grooves scratched into the styrofoam bottom. You quickly scan five lines of letters that don’t make any sense. Then it hits you — this must be a coded message from ACT! And 15 must be the secret decoding number!

**WVGTKRCWX VVWSCIZG QXHGTOKM.
KIR RW YGGR KR
RWV SGITGR DGKHUQKTRGTS
KOKCR RTKXSVWTR KR
GXH WF VCGT SCN.**

With hands shaking more from excitement than from the frigid air, you reach for your portable radio/tape deck. A flip of your fingers and the back slides off to reveal a state-of-the-art miniature computer. Quickly, you slip in a tape disguised as a hit rock cassette and list the decoding program to the screen.

*Input the following program and run it.
Then type in the coded message, one line at a
time. Lines 110, 220, 230, and 270 must each
be typed as a single line.*

PROGRAM 1

```
100 REM  DECODER
110  A2$=
    "ZYXWVUTSRQPONMLKJIHGFEDCBA"
120  A=ASC("A")
130  Z=ASC("Z")
140  GOSUB 900
150  PRINT "WHAT IS THE KEY?"
160  INPUT KY
170  PRINT "(TYPE STOP TO END.)"
180  PRINT "MSG ->";
190  INPUT AM$
200  IF AM$="STOP" THEN 320
210  FOR I=1 TO  LEN(AM$)
220  A$=AM$:SB=I:SE=1:GOSUB 800
    :C=ASC(XC$)
230  IF (C<A)+(C>Z) THEN P$=CHR$(C)
    :GOTO 280
240  P=C+KY
250  IF P>Z THEN P=P-26
260  P=P-A+1
270  A$=A2$:SB=P:SE=1:GOSUB 800
    :P$=XC$
280  PRINT P$;
290  NEXT I
300  PRINT:PRINT
310  GOTO 180
```

```
32Ø  END
8ØØ  XC$=MID$(A$,SB,SE):RETURN
9ØØ  HOME:RETURN
```

The program will run as is on the Apple II+ and IIe. See the Reference Manual, page 115, for changes for all other computers.

Operation Popsicle? What kind of crazy mission could this be? Is BRUTE trying to take over the ice cream industry? Realizing that you're in danger of freezing to death before the mission begins, you shelve your questions and scramble into the extra clothes you brought with you. But shorts and a thin T-shirt are no match for the cold wind that is now howling around you. The only heat you can feel is coming from the pack of chewing gum the vendor gave you. As you pull it out of your pocket, the wrapping comes off and the package miraculously expands into a jump suit just your size. Grateful for the efficiency of the ACT special-equipment section, you pull on the toasty garment and run down to the end of the pier to wait for your ride to headquarters.

Your eyes search the sea and sky anxiously — will they send a helicopter? A hot-air balloon? Who knows, maybe this time you'll get on board a garbage scow. By now you've learned to expect the unexpected from ACT's department of transportation!

Tremendous waves are crashing against the pilings, but that doesn't worry you as much as the huge triangular fin cutting through the foaming stuff. Horrified, you watch the world's largest shark heading straight for shore. You take a few backward steps, knowing that the dangerous fish can't get to you if you're far enough from the water, right?

Wrong! Ten feet from shore, Son of Jaws flips up out of the ocean like a dolphin, lands on the pier, and rolls over the wet boards as if he had wheels instead of flippers.

You turn to run — no fish out of water can catch you at top speed. But then you remember that you've left your computer on the boards behind you. You turn back to get it, catch your toe, and fall to the ground.

Instead of gobbling you up on the spot, the shark circles your quivering body and comes to a screeching halt between you and the beach. Since diving into the ocean is out of the question, your last avenue of escape is completely cut off!

“What a way to go,” you mutter.

The dagger-toothed grin that splits the shark's ugly face widens.

CHAPTER

2

“Code name?” the big fish gurgles.

The fear of death does weird things to your mind. Is the thing really talking?

“W-W-hat?” you query nervously.

“C’mon, I haven’t got all day — give me your code name.”

“O-O-rion.” You regret the response as soon as it passes your lips — suppose this is a picky BRUTE shark who eats only ACT agents!

The huge mouth opens wider and a familiar head pops out. You go limp with relief as you recognize Hot Wheels, the director of ACT’s transport division.

“Sorry to hassle you, but rules are rules — no name, no ride. Hop in — the team’s waiting,” he tells you.

You climb past the teeth and find your-

self in the two-seater cab of a small submarine. "I thought I was going to be this thing's lunch," you say shakily as the fake shark dives back under the waves. "It's good to see you again, H.W., but isn't this a strange way to get to headquarters?"

"Two hours ago, Tuttle Air Force Base was hit by a monster blizzard. Nobody can get in or out, and communications with ACT Central are completely cut off. We're. . . ."

"I heard a report of snow flurries on the radio, but I thought it was a joke. A blizzard in July is impossible," you interrupt.

"Well, that wasn't freeze-dried confetti falling back there on the beach," Hot Wheels answers grimly, wrenching the steering mechanism quickly to the right to avoid a school of jellyfish in the murky water. Expertly pulling the vehicle back on course, he continues, "And the timing couldn't have been worse — the director and most of the branch chiefs have gone to Tuttle for an emergency meeting. If it weren't for the station in northern Canada and the squid dome, the agency would be out of business."

"The squid dome?"

Your old friend explains that you're on the way to a secret ACT installation so far beneath the sea that nothing happening in the outside world can touch it.

Now "Operation Popsicle" is beginning to make sense to you. "So we're meeting there

to figure out how to rescue the top brass?" you offer excitedly.

"The bigwigs are in good shape — Tuttle has an inside auxiliary system that could heat up the South Pole, and there's enough food to last for three or four years." Hot Wheels runs his fingers through his red hair. "We've got a much bigger problem. Our meteorologists say that the earth may be on the brink of a new ice age. That was the reason for the Tuttle conference."

"You've got to be kidding! What about the 'greenhouse effect'? Isn't that making the world warmer — melting the polar icecaps or something?" you muse, frowning.

H.W. shakes his head glumly. "That's the theory, but it's not what's happening."

"Anyhow, I don't see how it could happen so quickly. That kind of change in weather patterns takes centuries. What's the problem?"

"Nobody knows, but we hope Operation Popsicle can deal with it before it's too late."

You sag a little in the seat. Ever since you signed on with ACT, you've been in tough situations. But what good is a computer expert going to be against a deep freeze? "Besides you and me, who's on the team?" you ask.

"Count me out — I've got to run what's left of the agency. See, there was a foul-up in my reservations, so I couldn't get to Tuttle on

time for the meeting, and. . . .”

“It’s lucky for us you weren’t there,” you say loyally, hoping to cut his story short and get back to the topic. “So who’s working with me on this mission?”

“Sunspot’s the leader — he’s a meteorologist who’s also a thermodynamics expert. Anchorage Annie is our cold-weather survival specialist. No time for more now — docking this baby takes concentration.” H.W. maneuvers the sub toward a sphere resting on the ocean floor.

You see immediately why it’s called the squid dome: eight armlike extensions twine along the coral reef on which the underwater installation squats.

A hatch opens in the side of the dome and you step out of the shark sub into a decompression chamber where guards are waiting to escort you to the first meeting of the Operation Popsicle team.

“Aren’t you coming, H.W.?” you ask as your friend prepares to close the sub’s hatch again.

“I’m on my way to check out the situation at the Canadian station, but I’ll see you later. Oh, and Orion. . . .” Hot Wheels hesitates, then lays his hand on your shoulder. “All of the experienced weather and survival experts are stuck at Tuttle — this is Annie’s and Sunspot’s first mission. I’m counting on you to help them over the rough parts.”

“I won’t let you down, Chief,” you respond with a smart salute — but the idea of a team of first-timers does not ease your anxiety!

Inside the main conference room, two agents deep in a loud debate are standing by a wall-sized map of the world. The short, potbellied man with the Kojak haircut is very familiar. Even without his clown suit, you recognize him as the meteorologist on *Wake Up, USA*, your favorite early morning TV news show — or at least he *was* on the show until the morning he predicted heavy showers and doused the anchorwoman with a bucket of water.

“I understand there’s a 96 percent probability you’re the best in the computer game, Orion. As the head of this team, I’d like to extend my heartfelt welcome.” You take the celebrity weatherman’s proffered hand gingerly, remembering how many times he’s zapped his television cohorts with an electric buzzer.

“Thanks, Mr. McB — ”

“The code name’s Sunspot,” he interrupts smoothly. “And my colleague here is Anchorage Annie, the top cold-weather survival expert this side of the Atlantic. Don’t let her good looks fool you, she’s the most —”

“Enough ego massage, Sunny.” The wiry, no-nonsense woman strides over to you. Her age could be anywhere from 40 to 60 and she

has a grip like a bear trap. "This is my first mission with ACT, so you and the TV clown will have to show me the ropes."

Sunspot stiffens at the reference to his former occupation. "Let's get on with the business at hand," he growls, not admitting his own lack of experience. "Why don't I fill you in on the maniac meteorology that's hit half the globe." Quickly regaining his air of unruffled good humor, he folds his arms across the expanse of his paunch, and begins, "About six months ago, the weather in some places went haywire. I predicted a hard freeze on Grenada, but nobody would listen until the banana crop was wiped out. And did they listen when I said that the Nile would overflow its banks? No-o-o-o, siree! And look what happened —"

"What's the bottom line, Sunspot?" Anchorage Annie cuts in.

"According to my calculations, the average temperature in some cities in the Northern Hemisphere has dropped 10 degrees in the past five weeks. If this trend keeps up, there's at least an 80 percent chance — no make that 86 — that the manufacturers of long johns are going to get rich," Sunspot observes.

"I'll bet it's got something to do with illegal aboveground nuclear testing," Annie says. "One of these days, human beings are going to blast themselves off the face of the planet, and good riddance, if you ask me." She pauses

to give Sunspot a meaningful glare. "Let the animals take over, I say! They have a heap more smarts than people, anyway."

"Ridiculous! You just don't understand modern technology," Sunspot argues. "Besides, everyone knows that the recent series of volcanic eruptions have had a tremendous impact on the weather."

You let out a deep sigh. From the looks of it, this mission needs a referee more than a computer expert. While the two of them continue their bickering, you study the map where the wacky weather trends have been pinpointed. "I don't think it's any of that stuff," you say slowly. You just know what the problem must be. Picking up a red marking pen, you make several quick strokes that form five sinister letters.

"BRUTE!" Annie and Sunspot gasp in unison.

CHAPTER

3

Annie's face is puzzled. "All I know about BRUTE is that the organization is bad news. Tell me, what would those malicious meddlers have to gain by turning the world into an Eskimo Pie?"

"Who knows what evil lurks in the hearts and. . . ." A shriek of static from the loudspeaker over the door interrupts Sunspot's rendition of the famous lines from the old *Shadow* radio show.

"BRUTE has discovered the dome's location — stand by for a video broadcast!" the P.A. announcer instructs.

The weatherman presses a switch on the television console and a woman's heart-shaped face, its features partially hidden by a cat's-eye mask, flickers onto the screen. With an arrogant toss of her long, tawny mane, she purrs,

“Hello, disorganized do-gooders. This is Tiger Lily, the world’s most beautiful BRUTE, coming at you live and in glorious color.”

“What do you know — a lady BRUTE, and a gorgeous one at that,” Sunspot mutters.

“She’s fine if your taste runs to tacky,” Annie observes sourly. “Can you believe that leopard-skin jump suit?”

“Surprised to find that BRUTE’s an equal opportunity employer?” Tiger Lily continues, moistening her lips with the tip of her tongue. “Well, that’s not the only shock you’re in for!” The long, red-enameled nail of her index finger flicks to a button on the desk in front of her.

The air around you shimmers for a split second and you feel as if you’ve just been shoved into a meat locker.

“What the —” Sunspot’s exclamation is cut short by his chattering teeth.

Lily pushes the button again and heat slowly returns to the conference room. “That was just a sample of things to come. By now you know we’ve iced your main installation, and even as I speak, a reverse thermal satellite is poised directly over your heads. When I give the signal, ACT’s last little hideaway will be colder than a nudist camp on a ski slope!”

“Apparently she doesn’t know about our Canadian outpost,” Annie whispers, looking over her shoulder as though the woman on television might overhear.

“Thank heaven for that. Even if she gets us, Hot Wheels and the others can carry on the fight,” Sunspot answers in an equally low tone.

Lily bares her teeth in a mirthless smile that makes the hair on your arms stand on end. “Before rigor mortis sets in, it’s only fair that you know exactly why you have to die. You fools will soon be no more than an icy memory, and it amuses me to share the brilliance of BRUTE’s master plan with you.”

While you search your mind for a way out of this predicament, the evil woman unfolds her horrible scheme: Using a network of thermal satellites that can control the elements on any part of the earth, BRUTE will force every nation to submit to their rule. Two weeks from now, everyone on earth will have to stand up and salute BRUTE! Tiger Lily stabs viciously at the button.

You huddle down into the warmth of your thermal jump suit and wait for the last blast of cold. Nothing happens.

“Get in here, you idiot — the mechanism’s stuck!” Tiger Lily screams.

A man sidles nervously up to her and flashes a smile toward the camera. “Just a teenyweeny malfunction, Madam. I’ll have it fixed in a jiffy,” he whines.

The evil woman gives him a look that would wither an oak. As the two huddle over the panel, ACT breathes a collective sigh of relief for the unexpected reprieve.

Your stomach is churning and your mouth feels like the Sahara but you manage to spit out: "The satellite they've got overhead must be computer-controlled. Maybe we can break into their transmissions and jam the programming."

Sunspot smiles indulgently. "Not to worry, group. Last week the squid dome was equipped with a new radiation screen that'll shield us from a 10-megaton bomb. BRUTE's piddling ray will bounce off it like a Ping-Pong ball."

"You're in charge — why don't you activate it before she freezes us to death?" Annie asks.

"I plan to," Sunspot replies shortly. But his fingers hover indecisively over the console on the conference table. "Trouble is, that space station's the only link we have to Tiger Lily. If we access it, we might be able to find the spot she's broadcasting from. We've got some pretty sophisticated tracking equipment in here." He turns abruptly away from the shield control and starts to pace. "The protective screen is impervious to electronic signals — put it up and we've blown the chance to locate BRUTE's stronghold. Plus, if the satellite beam is deflected too soon, Lily will realize that her plan to destroy ACT has failed."

Annie gives him an exasperated scowl. "Knowing where the cat woman keeps her scratching post won't do us a darn bit of good if we're a bunch of snow cones, now will it?"

I say we turn on that fancy gizmo and worry about finding her later.”

There’s merit to both points of view, but your heart is secretly with Annie. “Lily said it will take 10 minutes to finish us off. It might be a little uncomfortable, but we can get into the space station *after* she pushes the button,” you interject reasonably. “That way, she’ll think ACT is dead and go on about her dirty business.”

“Orion, that’s absolutely brilliant!” Sunspot beams. The indecision in his eyes is replaced by a steely intelligence; you can tell that the brain inside that shiny, bald head is clicking away at top speed. “It’s 75 degrees in here now. After Lily activates the ray, we’ll have nearly 4.8 minutes before it gets too cold for humans to function. That should be enough time for me to. . . .”

He doesn’t even finish his sentence as he heads directly for the sonar, radar, and other tracking devices.

Now if BRUTE’s equipment problems will last only a few minutes longer. . . .

They don’t. With an evil laugh, Tiger Lily activates the satellite. “Thanks to the ingenuity of my grinning friend, the system has been speeded up. I estimate that you now have three minutes worth of body heat left. Bon voyage, my friends!” she says in triumph.

As the television screen goes blank, you’re colder than you’ve ever been before. The flesh

under your fingernails starts to turn blue and your breath comes out in pitiful puffs of white vapor.

But since you're still wearing the thermal jump suit, you're in better shape than the rest of the team. Your colleagues are so cold they can't move. You'll be the only one who can turn on the shield!

"I've got it," Sunspot says with a shiver. "I know where they are. Orion — hit the shield!"

CHAPTER

4

With your last bit of strength, you slam your hand down on the lever that controls the shield. “I g-g-ot i-it!” you exclaim just before your numb body hits the floor.

Twenty minutes later the three of you are snugly bundled in blankets; you wave away the third cup of cocoa Annie offers. “T-T-iger L-L-ily and the B-B-RUTE crew are located at 145 degrees west longitude and 70 degrees north latitude,” Sunspot informs you.

“T-That would be in Alaska at the head of the Sheenjek River. Their stronghold is probably somewhere on the northwestern slope of Mount Wannamak,” Anchorage Annie says between shivers.

You are definitely impressed with her grasp of geography. And as for Sunspot, the man may seem clownish and bumbling, but he

came through. You get the feeling he's going to be a crackerjack team leader.

This mission might not be so hopeless after all, you think later as the team leaves the ocean-bottom installation. Since all the airports are closed by the blizzard, regular air transport is impossible. Luckily, Annie flew to the Operation Popsicle meeting in her own plane and left it at a private harbor-front strip not far from the dome. She'll airlift ACT to the Canadian outpost where the trek across the north-land will begin.

You hold back a shudder as you step gingerly over the frozen runway. Annie's aircraft is a vintage model that looks suspiciously like a crop duster. The right wing seems to be held together with picture-frame wire and hope. "Hot Wheels, where are you when I need you most?" you mutter, climbing into the crowded cockpit.

"Don't worry — I'm a certified bush pilot and this baby's taken me safely across the tundra more times than I can count," Anchorage Annie assures you. She makes a triumphant circle with her thumb and forefinger, then revs the ancient engine.

"We need to work out our cover story," the weatherman yells over the roar. "BRUTE mustn't suspect that we're on their trail again."

"It's all arranged. We're posing as art dealers looking for Aleutian artifacts. I talked to Hot Wheels just before we took off — he'll

have a dogsled and all the equipment we'll need waiting for us when we land," Annie shouts back.

"Dogsled? Have you lost your mind? We need to get to the BRUTE stronghold in this lifetime — not the next!" Sunspot explodes. "And another thing — you're way out of line making plans without checking with me. Do I have to remind you who's the leader of this mission?"

"I'm in charge of survival in the Arctic, and I say how we travel," Annie answers calmly.

"We'll go by snowmobile. A team of huskies can pull only a 500-pound load 20 miles in one day. To get 650 miles would take. . . ."

"Orion and I are taking the sled. You can hop around the glaciers on a pogo stick if you want!"

You sink as far down in the cracked leather seat as your shoulder harness will allow. There have been disagreements on some of your other missions, but nothing like this — and H.W. is counting on you to see that things go smoothly. "I bet the ACT special-equipment crew's figured out some way to speed up the dogs," you offer diplomatically, then try to change the subject. "Hey, isn't that a herd of deer down there?"

The pilot peers out the window and frowns. "Caribou — but I've never seen them so far south at this time of the year. We've

barely cleared the U.S.-Canadian border.”

“Obviously, they’re running from the BRUTE-made cold weather,” Sunspot observes stiffly.

You groan inwardly. Here you are with two brand-new agents who seem to hate each other’s guts; you’ve got to mush over 600 miles of snow, outfox Tiger Lily, and disable the BRUTE weather control network. Your future doesn’t look bright.

Fortunately, Annie has to spend most of her time steering the craft through the buffeting winds; the rest of the flight is relatively peaceful.

Hot Wheels is there to meet you when you land at the ACT installation. “Not a second to waste — your disguises are waiting in the Quonset at the edge of the runway,” he tells you as you step out of the plane.

Fifteen minutes later, feeling much calmer, you rejoin your fellow agents. You like the cozy feel of your fur-lined parka and you give the leather pouch slung over your shoulder a satisfied pat — safely tucked inside is your computer for this mission. It, too, has been disguised. A casual observer would think it’s a six-inch Aleut totem pole carved from walrus tusk, but you know it’s capable of performing even the most complicated calculations. And the rest of the equipment for the mission turns out to be just as ingenious as your computer.

“That’s a neat-looking sled.” You turn, shooting Hot Wheels a congratulatory grin.

“Folks up here call it a ‘komatik,’ and it’s strictly state-of-the-art. The body’s fiberglass, and the runners are iconel — that’s a special alloy of steel, nickel, and chromium,” your friend responds proudly.

Apparently, Annie doesn’t share your enthusiasm. “Those dogs don’t seem to have much spirit,” she observes gruffly. “Not one of ’em has moved a muscle in the past five minutes.”

You suddenly realize that she’s right. The handsome white malamutes are as still as snow sculptures — even the puffs of vapor that should be clouding the air around their muzzles are missing. Aren’t they breathing?

“And I count only five. We’ll need at least nine to pull the heavy load we’ve got,” the survival expert continues.

“Believe me, five can do the job, but here’s a little extra insurance for you in case there are any technical foul-ups,” a deep voice interjects. “This is Mukluk, the team’s lead dog.”

The man who just walked up behind you is restraining a frisky, beautifully-marked Siberian husky. The dog is so impressive, you hardly notice the man. Mukluk sniffs at your boots and wags the curved plume of his tail as though you’re a trusted friend. His large eyes are spirited and intelligent — one glance into their sky-blue depths, and you’re a goner.

Hot Wheels nods approvingly and draws your attention back to the man with the dog. "Folks, meet Agent K-9, our expert in cybernetics and animal psychology. As you can see, the combination of his talents is perfect for this mission."

His words are confusing. You understand right away that K-9 is an animal expert, but what's with the cybernetics part? You thought that was the study of mechanical and electronic communications systems. Shrugging off your puzzlement, you drop to one knee and scratch behind Mukluk's pointed ears. "How's it going, fella? I sure wish I had a dog like you back home."

You are rewarded with a playful lick across your cheek.

"Well, at least this one's got more life than the others," Annie says dubiously.

K-9's laugh booms out through the frosty air. "You can say that again! Muk is my pet experiment, and I have to admit I may have gotten carried away with his design." He rubs his chin thoughtfully and a shadow of concern edges into his eyes. "Since I haven't finished all the tests, I probably shouldn't let him go on this mission, but you may need him for backup — he's got some special functions the other don't have. Don't worry, though, he'll get along okay with the others. They're all the same basic model," the trainer finishes.

"Model? Don't you mean breed?" a thor-

oughly puzzled Sunspot queries.

“Didn’t Hot Wheels tell you the dogs are robots?” K-9 chuckles. “These babies can pull a 700-pound load at an average speed of 50 miles per hour — and for very short distances 75 in overdrive.”

“Well, I never!” Annie yelps indignantly. “Chief, you can’t expect me to drive a team of — furry machines!”

“You wanted a sled, now you’re stuck with it,” Sunspot gloats.

You answer the questioning glance Hot Wheels flashes you with a helpless shrug.

“You *did* at least get the thermal tent I asked for, didn’t you, Chief?” Anchorage Annie asks in a suspicious tone.

“Not necessary. When you link the circuits of robodogs A, B, and C to the cables in the runners of the sled, they create a force field that will protect you from the elements. No need for tents or firewood. Lightens the sled load considerably,” K-9 interjects.

“How do you like that, Annie? Welcome to the twenty-first century,” Sunspot chortles.

Beyond speech, the wiry woman glares at him.

“Give the robodogs a fair chance, Annie. Before it’s all over, you might even grow fond of them — especially Muk,” the animal psychologist says earnestly.

“Hhrrumph! The Bering Sea would come to a rolling boil before I’d allow myself to get

attached to a mechanical mutt!"

Hot Wheels is momentarily at a loss, but recovering quickly, he pulls a small notebook from his pocket. Only you are in a position to see that the pages are blank. "I know you all don't need the ACT pep talk, but it's standard operating procedure before each mission. Since I'm only acting chief, I'd better go by the regs. Now raise your right hands for the official oath," he says before he pretends to read. "We owe the mission the best we have to give. We hereby resolve to work together in mutual respect and friendship, never letting personal differences interfere with our mission."

As each of you solemnly promises, H.W. hands Sunspot a packet of briefing materials. "These will tell you all we know about Tiger Lily's operation. The BRUTE cold fronts have been occurring at eight-hour intervals, but monitor them carefully in case the pattern changes. The canine force field will protect you most of the time, but if strong winds accompany the storms, head for solid shelter. Now go out there and give it your best shot!" The acting chief salutes each one of you smartly.

Annie is very quiet as she guides the sled out onto the Dawson Trail. After an hour of chilly silence, she clears her throat hesitantly. "I'm sorry if I've been a little testy. First mission jitters, I guess," she admits.

"I haven't been a barrel of laughs myself, and I'll let you in on a secret — I'm not ex-

actly an old hand at this ACT business either,” the weatherman responds. “But with your help and Orion’s, I’m going to prove that I’m more than a TV weather clown.”

Hot Wheels, you’re one heck of an agency chief, you mentally congratulate your old friend. You draw in a deep breath of the crackling crisp air and settle back in your seat. But a tiny doubt still gnaws at you — will the truce between Annie and Sunspot be permanent, or is it going to take more than a few inspiring words to forge the three of you into a top-of-the-line Adventure Connection Team?

CHAPTER

5

Alaska. The very name echoes the vastness of the isolated wilderness. As the sled speeds over the diamond-sprinkled crust of the northern plains, only the sad sound of the wind and the whoosh of the runners break the strange stillness.

The eerie quiet cuts you off from the rest of the world and your body rebels against the unfamiliar weight of your Arctic trail outfit. You glance toward your companions, hoping for a bit of conversation. But Sunspot is absorbed in the briefing book Hot Wheels provided, and Annie seems lost in her own thoughts. Every now and then a brief grimace of pain flashes over her features, and she reaches down and rubs her feet.

The silence is so deep, the thumping of your heart is like thunder in your ears. “Why

are the hills so bare? I thought lots of pines and spruce grew up here,” you say to Annie, more to hear noise than get information.

“This is the tundra — the name came from a Russian word that means ‘where the trees are not,’ ” she replies. “Under the topsoil, there’s a layer of frozen ground called permafrost that’s a thousand feet thick. Tap roots can’t take hold.”

“You mean it always looks like this?”

The survival expert’s face darkens as if a storm cloud is passing over. “Not at this time of year. You should have seen it before BRUTE started the weather control business. Fireweed was blooming all along the banks of the Sheenjek River, and the plains were knee-deep with green grass and forget-me-nots. . . .” She breaks off her travelogue as a low hill comes up on the right, and shouts, “Haw, you dogs!”

“The dogs don’t respond to voice commands. If you want them to go left, push one of the levers on the handle,” Sunspot glances up from his papers to instruct.

“I know that,” the driver snaps, hastily tapping the gear. In an apologetic tone she adds, “I guess I just miss my real team.”

“Well, keep your mind on the job — we can’t afford any slip-ups,” the mission leader grumbles.

You guess the sudden flush that stains Annie’s cheeks isn’t entirely due to the cold. She bites her lower lip, then turns her attention to you. “Sure wish K-9 had programmed these

fake mutts to bark. Nothing's more uplifting than to ride behind a peppy bunch of malamutes."

At the head of the gang hitch, you see the curved brush of Mukluk's tail wag briefly. Without breaking stride, he lifts his muzzle to the sky and lets out a sequence of joyous yips. One by one, the others join in. You listen incredulously for a second and burst out laughing. The canine chorus is treating you to their version of 'Home on the Range'!

"That Muk is one smart husky," you say fondly.

"Hold that down, will you? This is an ACT mission, not a sing-a-long!" Sunspot says sharply.

You wonder why he's being such a kill-joy, but a glance at his furrowed forehead lets you know he's worried.

"We're making pretty good time, but we've got to get to Oomiak, a settlement on the south slope of Mount Wanamak, before the next BRUTE cold front hits. There's supposed to be a secret trail that leads from the village to the other side of the mountain. If we can persuade a native guide to show us the way, we can sneak up on the BRUTE stronghold without. . . ."

"Oomiak? The place is deserted," Annie interrupts.

Sunspot waves the briefing book. "You're wrong. It says right here that an ACT bush pilot

made a supply drop there last month.”

“That was before all the trouble started. A week or so ago, two of the town elders disappeared without a trace. There was a lot of talk about ancient evil spirits, and the villagers packed up and moved to Deadhorse.”

“Ten to one BRUTE was responsible,” you mutter.

The mission leader closes the briefing book. “This is a terrible setback. How will we get along without a guide?”

“What am I, chopped liver?” Annie’s tone is indignant. “I know this territory like the back of my hand!”

“No offense,” Sunspot says hastily. “The next cold front’s not due for another two hours, but it won’t hurt to make sure. Annie, pull up as soon as we cross the river. I want to set up my meteorological equipment and take some readings.”

“What for? I can tell you a storm’s due soon. Big one, too — my bunions have been killing me for the last 20 minutes.”

The weatherman hoots. “Come up to the 20th century, woman! We don’t need bunions, we have barometers.”

Something in front of the dogs takes your attention from the argument. The frozen expanse of the Sheenjek looks peculiar — darker and duller in the center than along the shorelines. “We’d better slow down. The ice looks thin up ahead,” you warn.

Your words are lost in the series of sharp pops that follow. Cracks spider along the surface beneath the pads of the dogs' racing feet!

"Whoa!" Annie pulls back sharply on the reins as a patch of water opens up in the vehicle's path.

The team dig in their heels, but it's too late — Muk and the point dogs slip into the frigid river. The wheel dogs, hitched directly in front of the sled, teeter on the edge.

"Jump!" Annie shouts, but there's no time to unfasten the safety harnesses that hold ACT in the basket of the craft.

You draw in a big gulp of air, wondering how long you can hold it before your breathing reflex takes over and fills your lungs with icy water. Your fingers close tightly over the strap of your leather pouch — no matter what, you've got to protect your totem pole computer. Losing it would be almost as bad as drowning.

"Turn the handles to the right!" Sunspot thunders.

With all her strength, Annie twists the handle grips. Unbelievably, the runners retract and a rubber raft inflates under the body of the craft.

"Well, I never," the survival expert murmurs weakly as, instead of a chilly bath, ACT enjoys a brief sail on the Sheenjek.

The far riverbank looks better than paradise to you. Annie deflates the raft and the dogs scramble safely ashore. As you jump off the

sled beside a frozen clump of underbrush, your legs are shaky, but your spirits are high — ACT's special equipment never fails you.

Sunspot immediately busies himself with his weather sensors and Annie digs down in her leather pouch. "Better have some grub — facing disaster is hungry business!" Some of the natural color returns to her pinched face as she adds, "Wish there was time to go fishing. You haven't lived until you've tasted fresh salmon grilled over an open fire."

Your mouth starts to water — you think about the hot dog you were going to buy back on the beach, and suddenly you're starving. But you aren't exactly thrilled with the looks of the brown strips the survival expert hands you.

"What's this?" you ask after the first cautious nibble. The stuff is tougher than tennis shoes and doesn't taste much better.

"Moose jerky. When you're through with that, I've got a special treat — a high-energy mixture of wheat germ, dried caribou kidney, congealed whale blubber, and a dash of honey for flavoring." Annie beams.

"Sounds yummy," you say, nearly gagging. Dropping down on one knee beside the lead dog, you check a loose end of his harness, hoping she won't notice that you're hiding the jerky in a mound of snow. "This is strange — this buckle looks just like a computer interface," you comment.

"I don't know much about that fancy

technical stuff, but no matter what it is, I'll never bad-mouth ACT's equipment again," Annie answers slowly. "By the way, Sunny, I'm sorry I've been so pigheaded. Hadn't been for you, we'd have been in a heap of trouble."

"Don't apologize — just kick me if I make fun of your feet again," Sunspot replies, his face turning an ashy gray as he takes the last reading. "Your bunions were dead on target — we've got about half an hour before we're slugged by a mammoth BRUTE cold front!"

"Shall we round up the dogs?" you ask grimly.

The mission leader shakes his head. "We need solid shelter. If we don't get to Oomiak fast, they'll find our bodies in the next spring thaw."

"No problem — just turn up the juice on the robodogs," Annie interjects confidently.

"Negative. They can't stay in overdrive more than five minutes at a stretch. Got any bright ideas, Orion?"

"We could disconnect the dogs' heat circuits and divert the extra energy to their legs," you reply thoughtfully.

"It's worth a try." Sunspot summons Muk with a shrill whistle.

"Not him!" The words fairly explode from your mouth. The plan may be risky and you don't want the lead dog to be the guinea pig. "Need some help?" you continue as the weatherman lifts up the flap of fake fur that shields

robodog A's complicated insides.

"I'm a mechanical engineer, remember? I may not know much about computers, but I can fix just about anything," Sunspot boasts, dusting his hands together as he finishes the job.

Robodog A is fine for the first few seconds, then he seems to go wild. He whips around, making ever faster circles in the snow. His barks run up the scale, and when he comes to high C, he lifts his head to the sky in a full-throated howl.

"Cut that out — heel, you mechanical mutt," Annie commands, starting toward the crazed automaton.

"Stay back!" you shout, your instincts warning of danger.

You didn't know Sunspot could move so fast. He flings himself through the chill air with a speed and force that would do a linebacker proud. Catching Annie midstride, he pushes her into a snowdrift two seconds before the robot dog explodes.

"Thanks, boss — I owe you one," the survival expert mumbles.

"It's my job," he answers. "And this one's yours, Orion. When K-9 designed the dogs, he must have made their functions interdependent —"

"You mean you can't fool around with one without messing up something else?" Annie cuts in.

"Exactly. Diverting the heat circuits won't

do it. We need to maximize our speed without using up the energy it takes to keep the dogs from freezing. If the sled isn't back on the trail in three minutes, we won't make it. We've got to come up with just the right combination of factors and reprogram the dogs. Orion, can you do something?"

Dime-sized flakes of snow are beginning to sift down from the now-leaden sky. As you slip the totem pole computer from your shoulder bag, you hear a low rumble, like the roar of a distant freight train. The sound makes your blood run cold.

"What's that noise?" you ask as you study your keyboard.

"Wind's picking up — there's no time to lose," Sunspot tells you tersely.

You work desperately, closing your ears to the onrushing storm and trying not to think of what will happen if you fail.

You've got a real problem on your hands! You've got to go fast, or you'll freeze to death. But speed uses up too much energy. Too much energy could upset the sled or make the dogs malfunction. The more weight you have on the sled, the more energy you use — but you have to have at least the weight of the three passengers. Then there's the steering capability. A steering factor of 10 is the most accurate — but setting the steering at 10 uses up a great deal of energy. However, setting the steering too low is too risky. You could go off the route. Some-

how you've got to find the right combination!

Quickly you create a program that will take all these factors into account and then simulate the results.

Input the following program and run it. It works like a guessing game. Input the speed, weight, and steering factors that you think will work. Then hit Enter and see what happens. Good luck. Lines 120, 320, 360, 370, 380, 390, 400, and 550 must be typed as single lines.

PROGRAM 2

```
100 REM DOG SLED
110 DIM T(4),P(5),V(5)
120 FOR I=1 TO 5:READ PX:P(I)=PX:
:READ VX:V(I)=VX:NEXT I
130 GOSUB 900
140 PRINT "CURRENT SETTINGS"
150 PRINT
160 VT=3:HT=1:GOSUB 910
170 GOSUB 500
180 FOR VT=3 TO 6
190 HT=13:GOSUB 910
200 PRINT P(VT-2)
210 NEXT VT
220 PRINT:PRINT
230 PRINT "NEW SETTINGS":PRINT
240 GOSUB 500
250 FOR VT=11 TO 13
260 HT=13:GOSUB 910
```

```

27Ø INPUT PX:P(VT-1Ø)=PX
28Ø NEXT VT
29Ø T(1)=P(1)*5
30Ø T(2)=P(2)*Ø.5
31Ø T(3)=P(3)*1Ø
32Ø P(4)=INT((P(5)-(T(1)+T(2)+
T(3)))/3)
33Ø VT=14:GOSUB 91Ø:PRINT P(4)
34Ø X=Ø
35Ø PRINT:PRINT
36Ø IF P(2)<V(1) THEN PRINT
"YOU FELL OFF THE SLED":X=1
37Ø IF P(3)<V(2) THEN PRINT
"YOU FELL OFF THE PATH":X=1
38Ø IF P(4)<V(3) THEN PRINT
"THE DOG FROZE TO DEATH":X=1
39Ø IF P(4)>V(4) THEN PRINT
"THE DOG OVERHEATED":X=1
40Ø IF P(1)<V(5) THEN PRINT
"YOU'RE TOO SLOW!":X=1
41Ø PRINT
42Ø IF X=Ø THEN 47Ø
43Ø PRINT:PRINT "TRY AGAIN?";
44Ø INPUT Y$
45Ø IF Y$="Y" THEN 13Ø
46Ø END
47Ø PRINT "YOU'LL MAKE IT!"
48Ø END
50Ø PRINT "SPEED      ="
51Ø PRINT "WEIGHT      ="
52Ø PRINT "STEERING    ="
53Ø PRINT "TEMPERATURE="
54Ø RETURN

```

```
550 DATA 21,480,495,5,8,75,68,78,  
690,33  
900 HOME:RETURN  
910 VTAB(VT):HTAB(HT):RETURN
```

The program will run as is on the Apple II+ and IIe. See the Reference Manual, page 117, for changes for all other computers.

CHAPTER

6

You've done it! After the sled and robodogs are reprogrammed, ACT makes the 50-mile sprint to Oomiak without a second to spare. As Annie guides the team down the main street of the deserted Eskimo village, the storm is beginning to nip at you like a howling pack of wolves.

“Keep your mouths covered, and whatever you do, don't breathe too deep.” The driver's voice comes out muffled through the fur-lined hood of her parka. “Ice crystals can form as the air goes down — those little suckers can slice through lung tissue like. . . .”

“We get the picture,” Sunspot mutters, clapping mittened hands over his nose. He stares in dismay at the row of small, unpainted huts set close together in a haphazard line along the road. “Most of these buildings are built on

skids — they wouldn't hold out against a sneeze, much less hurricane-force gusts. Where are the igloos?"

"Every tenderfoot that comes this way expects ice-cube houses," Annie sighs. "About the only igloo in the state is in Nome — it was built for kicks by the Explorer Scouts of Post 63 — but I know where there's a cave we can use."

"Well, you'd better head for it before the snowfall gets any heavier."

Five minutes down the trail, the entrance to a mountainside cavern yawns like the mouth of a waking giant. Flanking both sides are weathered Eskimo totem poles, the carved eyes of their fanciful birds and beasts glaring fiercely through the gathering gloom.

"This is really spooky," you mutter. The combined beams of three flashlights barely make a dent in the blackness, especially since Sunspot's batteries are weak.

But you start to feel better once the equipment is stashed and Annie starts a fire in the center of the chamber. There's not as much heat as the canine force field would have provided, but you can't have everything. The gallant robot malamutes earned their pay just getting you here.

"What is this place?" you ask, looking around nervously. Shadows caused by the flickering flames move restlessly, and your imagination peoples the far side with the danc-

ing forms of long-dead warriors.

“It was used for native Alaskan ceremonies. In ancient times, the villagers of Oomiak considered it taboo, but they don’t put much stock in that stuff nowadays.” Annie’s brown eyes gleam thoughtfully in the firelight as she continues. “Some folks still step lightly around the area, though. During the gold rush, a couple of miners struck a rich vein of ore not far from here. The natives warned them to stay away from this particular cave, but the fools wouldn’t listen. Their bodies were —”

“Save the ghost stories for daylight. We need to get some rest,” Sunspot cuts in, then adds sheepishly, “This place already gives me the willies. If a bat flew down from the ceiling right now, I’d probably have a heart attack!”

You wish he hadn’t said that. Inching closer to the fire, you’re very grateful when Mukluk pads over and settles down beside you. Although you’re certain you won’t even blink your eyes, much less close them, you soon drift off with the dog’s furry tail draped muffler-style across your chest.

“What’s that?” You sit bolt upright an hour later. The ominous rumble that’s awakened you could be anything. Bears or evil spirits spring to mind. Neither prospect makes you happy.

Annie is on her feet instantly. “Avalanche!” she shouts. “Stay away from the mouth of the cave!”

She doesn't have to warn you twice. The three of you huddle against the far wall of the cavern, watching helplessly as tons of snow seal off the entrance.

"We're trapped," Sunspot says dully as the roar of falling ice and rocks subsides.

"Not necessarily." The survival expert's thin face has a determined look about it. "While you two were sacked out, I did some nosing around. There's a tunnel at the back of the cave. In fact, the mountain is probably honeycombed with passages cut through by gold miners. One of them may even be the secret trail mentioned in the briefing book."

"Well, let's go — it's the only shot we've got." Sunspot hurriedly stows a few small pieces of equipment in his knapsack. "It's best to leave the sled and robodogs here. We don't want. . . ."

The rest of his sentence is chopped off by a vocal protest from the lead dog — it's clear that Mukluk doesn't intend to let you go without him.

"Muk would be good to have around in a pinch," you plead. "Suppose we ran into a pack of wild animals?"

"Okay, but keep him out of the way," the mission leader instructs.

"These old tunnels are a regular rat's maze. We'll need some way to mark a trail so we don't wander around in circles. I wish we had some chalk," Annie says.

“I’ve got something better. I always keep these in my pocket — never know when they’ll come in handy.” Sunspot produces a batch of the Dayglo stickers you’ve seen him plaster all over the weather map on his TV show. “We’ll use the smiling sun faces to mark the safe paths. If anything looks the slightest bit suspicious, slap on one of these thunderclouds.”

The tunnel starts out wide enough for you to stand upright, but gradually narrows until you’re crawling on your hands and knees. The dank, cold air gets increasingly sour. Each breath fills your laboring lungs with a residue of dust and fear.

You hear the clang of metal against stone, then a smothered curse. “Hold on to your flashlight, Orion. I just dropped mine down a crevice in the rocks,” Annie mutters over her shoulder.

“We’ll have to turn back. Something’s blocking the passage and I —” Sunspot’s voice rises to a strangled yelp. “I’m stuck — and the walls are caving in! Don’t bother with me, save yourselves!”

“In a pig’s eye!” Annie grasps one of his ankles and you take the other, but your efforts only make matters worse. The earth rumbles threateningly, and what was a sprinkling of loose dirt turns into a steady stream.

Before you have time to panic, Mukluk tenses his steel muscles and launches himself into the shrinking space beside the mission

leader. His front paws are an awesome blur as he burrows through the blockage up ahead.

“I can feel a breeze on my face. Muk must’ve broken through to another tunnel! Hang on, Sunny — the worst is over,” Annie shouts encouragingly.

As you help her drag the mission leader through the hole the dog has dug, the ground trembles so violently that you tumble head over heels. You’re not hurt, but the precious flashlight you’ve tucked in the pocket of your parka arcs up into the air. With a sickening crunch, it strikes the granite wall of the passageway and flickers out.

The fading beam from Sunspot’s electric lantern seems to shed about as much light as a match. On all sides you can feel the blackness gathering strength and the chill sweat of fright traces a path down your backbone.

“This is no old mine shaft,” Annie exclaims, striding to the wall on the left and scrubbing at it with the palm of her glove. “Look at this — solid steel! Shine your lantern over here, Sunny. I think there’s a door.”

A low growl comes from Mukluk’s throat; he paces restlessly beside you.

“Well, it’s a cinch we can’t go back, and since this is the only game in town, we’d better try to open this thing,” Sunspot says grimly, feeling for a knob. His hand hits a hidden switch and you can’t believe what you see. A plate on the grimy surface flips open to reveal

an all-too-familiar BRUTE insignia and an arrow pointing conspicuously to an electronic outlet.

“Ho boy, I think we just found BRUTE’s basement. And I think that’s a computer terminal hook-up. If it controls the door, I may be able to get us out of here.” Your voice is jubilant; at last there’s something you can deal with in this wacko place. You whip out your totem pole computer and unreel the terminal connection, drawing in a sweet breath of relief as the familiar prompt appears on the miniature screen. Confidently, you key in the command for a directory and get a pretty complete listing. Among the items on the list are OPENDOOR.MOC and TRASH.COM.

“I’ve got the listing that will open the door,” you say.

By now Muk’s barking is at top volume. He stops briefly to tug at your arm with his teeth, then resumes the barrage. “Cut it out, Muk, I’m busy,” you warn.

Input the following program and list it. Can you find the password? Lines 230 and 240 must be typed as single lines.

PROGRAM 3

```
1000 REM EDOC
1100 GOSUB 9000
1200 S$="BRUTE":REM PASSWORD
```

```

13Ø PRINT "WHAT IS PASSWORD?"
14Ø INPUT P$
15Ø IF LEN(P$)<>LEN(S$) THEN 24Ø
16Ø FOR I=LEN(P$) TO 1 STEP -1
17Ø A$=S$:SB=I:SE=1
18Ø GOSUB 8ØØ:S1$=XC$
19Ø SB=LEN(S$)-I+1:A$=P$
20Ø GOSUB 8ØØ:P1$=XC$
21Ø IF P1$ <> S1$ THEN 24Ø
22Ø NEXT I
23Ø GOSUB 9ØØ:PRINT
    "ACCESS GRANTED":END
24Ø GOSUB 9ØØ:PRINT "ACCESS DENIED."
    :PRINT "KA-BOOM!!!": END
8ØØ XC$=MID$(A$,SB,SE):RETURN
9ØØ HOME:RETURN

```

The program will run as is on the Apple II+ and IIe. See the Reference Manual, page 118, for changes for all other computers.

You are about to run the program, but Mukluk won't let you. His persistence makes you hesitate — is your mechanical friend trying to tell you something?

As if you didn't have enough trouble, Sunspot's flashlight gives up the ghost. The only thing between you and total darkness is the bright green shine of the screen.

“This is too easy. Tiger Lily doesn't seem like the type to put up with such lax secu-

riety,” you muse as your finger hovers doubtfully over the return key.

“Go ahead. We can’t be any worse off than we already are,” Sunspot urges.

Is your fearless leader right, or will your next move bring down the curtain on the final ACT?

Suddenly, you have an idea. There’s something peculiar about the program. You think you have it figured — but it’s a big chance. You decide to take it, but your heart is in your mouth.

Can you figure out what the program is looking for? If you are confident you know the secret, run the program now! If you’re stumped, see page 119 of the Reference Manual.

CHAPTER

7

“Thank goodness you recognized Tiger Lily’s little boobytrap in time, Orion. If it hadn’t been for your caution, we’d have been blown to bits by the explosives wired to that door,” Annie shudders.

The three of you wait nervously as Mukluk bounds through the now-open entrance and sniffs around the corners of BRUTE’s dimly lit basement.

“Most of the credit belongs to Muk,” you reply modestly.

The husky emits a short bark, signaling with a brisk snap of his curved tail that it’s safe for you to enter.

The room you step into appears to be a wine cellar; dusty green bottles line the floor-to-ceiling shelves, and there are kegs marked “BRUTE BREW” stacked beside the exit on the far wall.

“These characters certainly don’t intend to get thirsty, do they?” Sunspot observes, taking a three-inch metal cube from his knapsack.

“What are you up to?” you ask curiously as he flips off the cover of the device and pulls out a tiny monitor.

“This is a thermograph. It’s sensitive enough to detect body heat within a two-mile radius. This baby’s going to tell us how many BRUTEs are in this stronghold, where they’re located, and how often they change their socks! That way, we won’t have any nasty surprises when we walk out of this cellar.”

As the mission leader peers at the monitor, the confident expression on his face changes to puzzlement. He readjusts a few wires, takes another reading, then shakes his head in disgust. “Besides us, there’s not a living soul in this complex. We got here too late — Tiger Lily must’ve completed the new system she was bragging about and moved the entire operation.”

“At least we can search the rest of the stronghold without BRUTE interference,” Annie offers. “Since they don’t know we’re after them, they probably got careless. I’ll bet we’ll find some clues that will tell us where they’ve gone.”

“It’s curious that they didn’t bother to take their stash with them,” Sunspot muses, blowing the dust off a wine bottle and studying the

label before he tucks it into his knapsack.

He holds up a warning hand as the ACT members head for the far exit. “And, gang, let’s be careful out there.”

Beyond the cellar door is a four-foot-square landing. A dark stairway, curtained on one side with tiger-striped, velvet drapes, leads to the next level. The team is barely on the third step when the door you just exited swings shut with a resounding clang. Annie dashes back to try it.

“Scratch one escape route, folks — this sucker’s locked tighter than the vault in Fort Knox,” she says grimly.

Huddling close together, ACT is midway up the stairs when you hear a click followed by a whirr. The gaudy drapes slide open at the same time as a bank of lights in the sloping ceiling springs to life.

Sunspot’s gurgle, Annie’s choked-off scream, and Muk’s startled yip all come at the same time. You don’t utter a sound; your panic-frozen throat won’t let you. To the right of the steps stands a trio of grinning, human skeletons and a dancing bunch of steel and wires!

After a heart-stopping minute, the weatherman reaches out into the space beyond the banister — and the lead bag of bones mimics his motion. “Don’t let this little display throw you, folks, it’s just another of BRUTE’s dirty tricks.” Sunspot’s voice is shaky, but relieved. “The wall is some kind of X-ray mirror. Tiger

Lily's treating us to a picture of our own insides."

You wave your arm to test his theory. Sure enough, the small skeleton in the middle waves back. Looking closely, you can see the healed fracture you got from a fall out of an apple tree when you were a kid. "This mirror would be a real money-maker at an amusement park," you snicker. "But I can't figure out why BRUTE went to all the trouble."

"I reckon even BRUTE has to have entertainment during the Arctic winter. People do strange things to fill up nights that are five months long," Annie speculates as she follows Sunspot through the door at the head of the stairs. "Maybe this is some kind of BRUTE dirty-tricks-testing station. I sure hope there aren't any more featured attractions up here, though. This sideshow cost me six gray hairs!"

Nobody realizes how correct the survival expert's theory is until you all are standing in the middle of the weird room upstairs. Multi-colored lights flicker on and off, and the place is painted in the garish colors of a carnival midway.

"Looks like a bunch of clowns went plumb crazy in here." Annie's eyes are disbelieving as she takes in the bizarre decor. "No offense, Sunny," she adds with an impish grin.

The sudden, tinny blare of a circus band drowns out Sunspot's reply. As the music stops,

the wall facing you slides back to reveal a gigantic television screen.

“Welcome to the BRUTE Not-So-Much-Fun House, intruders. From the slick way you’ve avoided our little pitfalls, I must assume that you’re ACT agents.” A three-foot-tall image of Tiger Lily’s face greets you. “Of course, I’m disappointed that you escaped from the squid dome, but it’s no big thing — I have other plans for you.”

The woman’s lips twist in a scornful smile and she continues. “Up until now, the N.S.M.F. House has been limited to our internal uses. Congratulations, you are our first ACT vic — I mean guests.”

You swallow down the lump in your throat.

“Since ACT is so clever at getting out of tight spots, I’ve pushed the N.S.M.F. experience level up a few notches. You won’t get out alive, but I do hope you’ll provide us with *some* entertainment. You have no idea how boring this snowbound slum can get.” She leans back in her ornate, leopard-flanked chair, a pout marring the perfection of her features. “It’s a pity our two-way sound system is malfunctioning, though. I would so enjoy hearing your last screams. Well, enough chitchat. . . . As they say in show biz, break a leg!”

“That two-bit excuse for a centerfold — I’d like to get my hands on her tiger skin!” Annie snaps indignantly.

“There are two corridors leading off this room. Which one do we explore first?” you ask, anxious to get on with the business at hand.

“We’ll split up — you and Annie take the right, Muk and I will see where the other one leads,” the weatherman instructs, snapping out of his trance. “If they want a show, let’s give them a darn good one.”

The right hallway reminds you of one of those rat mazes in biology class. There are so many twists, turns, and blind alleys that you’re kept busy pasting up Sunspot’s smiling sun faces.

“What’s in there?” you ask as Annie opens a door on the left.

She quickly slams it shut on something that looks like a spider leg made of moldy lime Jello. “You don’t want to know,” she mutters, plastering three thunderclouds by the knob.

You’re fast running out of territory to explore; the corridor stops at a circular, light-filled room ahead. Classical music and a flowery perfume waft gently through the open archway.

“Well, this is the first tasteful thing I’ve seen in the whole place.” Annie walks across the spongy, rust-colored carpet that curves up into the pale yellow walls without a seam. Seven columns, which appear to be constructed of soft, white plastic, arch to the ceiling. But instead of ending in capitals, their tips wave gently in an unfelt breeze. “We could be

standing in the middle of a flower,” she adds in a bemused tone.

“Uh-huh,” you respond warily. Your attention is on the large, ornamental fountain in the center of the room. It’s spouting a liquid the color of orange marmalade. You take a cautious step closer, picking up one of the white objects that outline the edge.

“Arrghhh,” you gag as you take a closer look. What you think is a curiously-shaped rock turns out to be a broken bit of human jawbone.

“Acid!” you shout to warn Annie away.

But the prospect of a very painful bubble bath is the least of the survival expert’s problems at this moment. “Help me, Orion.” Her frightened scream comes from high above your head.

You stare up in horror. One of her ankles is encircled by a hairy tentacle growing out of one of the columns, and she is suspended upside down over the deadly pool.

“P-Pocket k-knife in my leather p-pouch by the d-d-door!” Her stammer is breathless with fear.

As you dash over to retrieve the bag, a rubbery vine snakes out and snags your waist. Before you can react, you find yourself lifted up beside Anchorage Annie. The grip around your stomach tightens, making it hard to breathe, much less talk.

“W-What — ?” is all you can get out.

“A giant variety of the man-eating Tiger Lily — what else?” the survival expert gasps. “Swing toward me as hard as you can, Orion. If we get going hard enough, the motion might snap the vines.”

It’s hard to follow her instructions with your lungs being mashed into your liver, but somehow you manage. The two of you are soon swinging like twin pendulums in a grandfather clock.

Maybe the plant doesn’t have a good enough hold on Annie, or her vine might be weaker than yours. Whatever the reason, the last hard shove you give her as she passes does the trick. The plant’s grip loosens and she tumbles to safety beyond the rim of the fountain. It also dislodges the leather strap slung across your shoulder. Numbly you watch as your pouch and the precious totem pole computer inside are disintegrated by the acid in the pool!

“Keep swinging, Orion! I’ll try to catch you,” Annie yells encouragingly.

“Get out of here before it captures you again,” you struggle to say.

Inch by agonizing inch, the plant lowers you toward the waiting pool, but you’ve stopped caring — you’re not even particularly afraid to die. Wouldn’t ACT be better off now if you weren’t along to get in the way? Without your computer, what could you possibly contribute to the mission?

CHAPTER

8

The sole of your boot is now barely a foot from the surface of the pool, and you know that in less than a minute the lethal liquid will begin to eat its way through the leather. But you're still thinking about the loss of your computer, and you blank it out of your mind.

Anchorage Annie has retrieved her pocket knife; she slashes desperately at two more tentacles that slither out to recapture her. "You've got to try, Orion!" she pleads as she dodges an attack from the rear.

"What the . . ." Sunspot appears in the archway, his mouth gaping in disbelief. "Sic 'em, Muk," he yells over his shoulder.

With a bloodcurdling growl, the robot husky reaches Annie's side in two giant strides. Snapping savagely, his teeth make short work of the plant's tough feelers. The tentacles hastily retreat, oozing yellow-green slime from the deep cuts the dog has inflicted.

You watch Sunspot pull the wine bottle he swiped from the BRUTE cellar out of his knapsack. With a flick of his wrist, he smashes it against the side of the arch. Now, armed with the sharp remains of the bottle neck, he advances toward the pool. "Orion, what's wrong with you? You can't give in without a fight! Kick backward as hard as you can — that's an order!" he shouts.

The mission leader's sharp command snaps you out of your numbness. Pumping for all you're worth, you launch yourself like a kid on a playground swing. The movement sends you sailing over Sunspot's head. As you pass him on the way down, you feel his hand slip along the length of your calf; just when you're afraid he's missed, his fingers catch in your bootlaces. One stroke of his broken bottle frees you.

Out of breath and shaken, ACT's human agents head for the safety of the corridor, but Muk isn't finished with the giant flower. The robot husky goes on a whirling, ripping rampage of destruction.

The all-out assault is fatal to the plant. In the throes of death, its stamen columns buckle and the yellow walls separate into wilting petals. The fountain belches sickly, slopping orange dribbles of acid over the sides of the pool.

"Enough already, Mukluk — heel, big fellow," Sunspot summons.

You wouldn't think a robot dog could look smug, but this one does. Obediently, he comes

trotting out with what can only be called a grin plastered across his chops.

“Muk, I should have my tongue cut out for calling you a mechanical mutt — you’re a miracle,” Annie says, planting a kiss between the husky’s ears. She flashes a broad smile at you and Sunspot. “And you all are no slouches, either. If I live to go on another mission, I sure as heck want you two by my side.”

“We’re a crack team, all right. And together, we’ll get out of this mess.” Sunspot pounds her shoulders fondly.

As ACT follows the smiling sun faces back through the maze, you feel as necessary as a set of training wheels on a 10-speed bike. “Need some help with your knapsack, Sunspot?” you ask, wanting to feel useful again.

“Nope, I can handle it.” He glances at you curiously, then shrugs and gestures toward the door plastered with thunderclouds. “What’s in there?”

“You don’t want to know.” Annie repeats her earlier comment with an identical shudder. “We’ve been so busy I forgot to ask — did you and Muk find an escape route in the other corridor?”

The weatherman’s face pales. “Nope. We did run into a gigantic cockroach. He didn’t want to let us through and you can’t argue with a bug the size of an 18-wheeler.” His tone brightens as he turns to you with a grin. “I’d bet my last dollar there’s another computer in-

terface hidden in the main room, though. Come on, Orion. Do your stuff!”

“I can’t — the totem pole’s gone,” you mumble, washed away in a tide of depression. Not even Muk’s playful tugs on the hem of your parka can lift your spirits.

“Good grief! What are we going to do now?” The ACT leader whips out his polka-dot handkerchief and swabs nervously at his brow.

“Beats me,” Annie murmurs. Clearing her throat, she continues in a more upbeat tone, “You don’t need that gadget, Orion. You’ve already got a system better than the fanciest hardware on the market — and top-notch integrated software in the bargain.”

You shake your head in puzzlement. “What are you talking about, Annie?”

“Your brain, my young friend. Your computer may be totaled, but you still have your gray matter,” Sunspot joins in.

You realize they’re trying to cheer you up, but it’s not working. You nod dejectedly, wishing everybody would just leave you alone. “Quit fooling around, Muk,” you warn the dog sharply. The yipping noise he makes as he prances along beside you is starting to get on your nerves.

“Listen up, Orion — with or without your computer, you’ve got to keep your promise to do your best on this mission!” Sunspot’s eyes glitter dangerously. “The two of us have run out of ideas, and the dog can’t talk, so now it’s up

to you. How *do* we get out of this BRUTE house of horrors?"

The harsh question shakes you. Timidly, you begin, "Tiger Lily can't hear us, but if she couldn't watch us either, she wouldn't know what traps to spring next. When we get back to the center room, we have to disable the spy camera." Squaring your shoulders, you add with your old confidence, "There has to be a way for a TV repairman to access the circuits of the big-screen set. If we can find it, it may lead to an escape route."

"Now you're cooking, Orion!" Annie says jubilantly.

"Don't count your chickens before they're fried," you warn, but you're definitely feeling more in control.

When ACT reaches the main concourse, the lady BRUTE resumes her broadcast. "You'll all pay dearly for killing my prize houseplant," she spits out.

Paying no attention to the stream of threats that follow, Sunspot glances around casually, then jerks his head toward the wall opposite the video screen. When you were in here before, you didn't notice the clown painting hanging from the ceiling. You study it intently, realizing that there's something funny about the eyes — they seem to be following you.

"Alley oop!" the weatherman shouts suddenly, tapping his shoulders.

It takes only a second for you to see what

he's up to. Quickly, ACT forms a human totem pole with Annie in the middle and you on top.

"Hurry — I can't hold you much longer," Sunspot pants as your fingers rip through the canvas of the clown's face. A swift jerk at the hidden camera wires, and BRUTE's peephole is closed for good.

Tiger Lily's face is livid. "Go to the N.S.M.F. House and see what's wrong with the spy system!" she screeches at her goons.

"But Madam Lily, we just set off another cold wave. We'll freeze to death if we go out there," an off-camera voice answers.

"Buckshot, if you're not over there in 15 minutes. . . ." She doesn't have to finish the threat.

Ignoring the rest of the broadcast, you slide your fingers along the edge of the screen. "This is it!" you yell to the others, pressing a hidden switch.

The wall splits, then folds in like swinging doors on an Old West saloon. The room beyond contains a bank of monitors that show what's happening in the rest of the BRUTE training facility. Your eyes bulge — the huge cockroach is worse than a nightmare, and you can't even give a name to the blob squatting patiently in the middle of the far screen.

"I told you you didn't want to know," Annie croaks.

"There's what we need!" You point excitedly to rolls of blueprints stacked in a corner.

“I remember seeing a listing called TRASH-COM, when I called up the directory outside the wine cellar. That could stand for trash compactor. A place this size should have a pretty large waste disposal,” you say.

“Without your computer to activate it, what good will that do —” Sunspot’s question is cut short by a sharp nudge from Annie’s elbow.

You give her a grateful look. “The compactor must have a chute for ejecting trash. If we get into the mash unit, we might be able to reach the outside dump.”

“What have we got to lose, Sunny?” Annie urges. “Those BRUTE goons will be here in another 10 minutes. If we don’t move, they’ll mow us down.”

The N.S.M.F. House blueprints prove your theory. Not only is there a disposal unit large enough to hold the four of you, the plans show that it’s located directly below the room you’re in now! A trap door in the floor covers the entrance chute.

You follow Mukluk through the trap door, fighting off another attack of depression as you speed down the inside chute to the trash masher. So you got ACT through this one pinch using nothing but your brain — but what happens in a crisis where only a computer can help?

As though the robot husky is reading your thoughts, he lets out a short yip and flips you a reassuring wave of his curved tail.

CHAPTER

9

“I wouldn’t want to be in here when this thing is going full blast.” Anchorage Annie shivers, staring at the wicked-looking blades that line the sides of the square trash compactor.

“Me neither,” you respond shakily, sure that the rust-colored stains splattered across the sharp edges aren’t dried catsup. From the blueprints upstairs, you know the entrance to the outside chute is supposed to be on the left wall, but you don’t even see a seam in the grimy surface.

Your attention is distracted by Mukluk’s yapping. The husky is busily circling a two-foot-high, knobby post in the middle of the floor.

“Isn’t that just like a dog?” Sunspot comments, probing cautiously between the blades

in search of the exit. "Get away from there, boy, that's no fire hydrant!"

The robodog sits back on his haunches with an offended sniff.

"Looks like Agent K-9 invented a few robot fleas, too," the survival expert chuckles when Mukluk begins scratching vigorously at his leather harness.

The weatherman wanders over and perches dolefully on the plug. "If there's an exit, I sure can't find it. What do we do now?" he queries, resting his foot on a bulge in the metal post.

Your eardrums are blasted by a sudden clanking roar. Slowly at first, the disposal's choppers start to rotate; they gather speed until you can see nothing but a savage blur. "You must've tripped the start switch!" you yell at Sunspot.

He jumps up quickly, but too late. With a halting lurch, the sides of the compactor move slowly inward.

You stare at the fake fire plug, nearly paralyzed with fear. It is set in the middle of a three-foot, solid red square. Between it and the oncoming walls, a series of 10 dotted squares are outlined on the grubby floor.

LURCH! Now there are nine squares left. It doesn't take a genius to figure out that the walls pause at the lines to chew up everything in their path before moving in again.

The weatherman tugs frantically at the cap

on the plug, nearly falling backward as it loosens and slips off. There isn't an off switch underneath as you had hoped. Instead a shiny computer interface winks up at you. You've never felt so helpless in your whole life.

LURCH! You check the space around the post, but there isn't enough for one agent, much less three agents and a robodog. Eight dotted squares to go before ACT is cut to ribbons by the whirling knives.

You throw your speeding mind into high gear. How can you rig up a working computer in less than five minutes? A vague picture flits at the edges of your mind: you see yourself kneeling in the snow beside the Sheenjek River, fiddling with Mukluk's harness. You remember thinking how much the buckle resembled a computer tie-in. . . .

"MUKLUK!" You dive for the dog, your fingers stumbling over the device that holds the harness together. It comes apart in your trembling hands. "I got my computer back!" you yell as you plug the leather strap into the post.

"What'll you do for a keyboard, punch his teeth?" Annie says doubtfully.

"I hope he'll respond to voice commands." You cross your fingers and look into the robodog's blue eyes, now the twin screens of your new hardware.

Instead of the usual prompt, a brief message flashes. "Took you long enough. What do you want me to do now, Orion?" Muk punc-

tuates the sentence with a dry swipe of his tongue across your cheek.

“List the TRASHCOM program,” you instruct him, listening fearfully for the next lurch.

Input the following program and run it. Lines 270, 290, 340, and 380 must be typed as single lines. As you can see, ACT is in deep trouble unless you can do something!

PROGRAM 4

```
100 REM GARBAGE
110 GOSUB 900:GOSUB 960:GOSUB 970
120 REM INITIALIZE MAXIMUM LOAD
130 ML=0
140 A$="-":B$="-"
150 FOR I=1 TO SW-2:GOSUB 820:NEXT I
160 L$=A$
170 A$=" ":B$=" "
180 FOR I=1 TO SW-2:GOSUB 820:NEXT I
190 BL$=A$
200 HF=INT((SH-1)/2):HS=INT(SW/2)-HF
210 VT=HF+1:HT=INT(SW/2-1):GOSUB 910
220 PRINT "*ACT*";
230 FOR I=1 TO HF
240 VT=I:HT=HS+I:GOSUB 910
250 SB=1:SE=SH-2*I:A$=L$:GOSUB 800
260 PRINT " ";XC$;" ";
270 VT=SH-I:GOSUB 910
    :PRINT " ";XC$;" ";
```

```

28Ø FOR J=I+1 TO SH-I-1
29Ø VT=J:HT=HS+I:GOSUB 91Ø
    :PRINT " !";
30Ø HT=HS+I+SE:GOSUB 91Ø:PRINT "! ";
31Ø NEXT J
32Ø WT=WU:GOSUB 92Ø
33Ø REM TEST MAXIMUM LOAD
34Ø ML=ML+1:IF ML>HF THEN VT=SH-1
    :HT=1:GOSUB 91Ø: PRINT "SAFE";
    :END
35Ø VT=I:HT=1:GOSUB 91Ø:PRINT BL$;
36Ø VT=SH-I:GOSUB 91Ø:PRINT BL$
37Ø NEXT I
38Ø VT=HF+1:HT=INT(SW/2-4)
    :GOSUB 91Ø
39Ø PRINT "SQUISH!!";
40Ø END
80Ø XC$=MID$(A$,SB,SE):RETURN
82Ø A$=A$+B$:RETURN
90Ø HOME:RETURN
91Ø VTAB(VT):HTAB(HT):RETURN
92Ø FOR WS=1 TO WT:NEXT
96Ø SW=4Ø:SH=24:RETURN
97Ø WU=2ØØ:RETURN

```

This program will run as is on the Apple II+ and IIe. See the Reference Manual, page 120, for changes for all other computers.

“Wait, I’ve got it!” you exclaim. “If I can fool the computer into thinking the compactor is full, it will stop!” You search the listing for the controls as the walls come even closer!

Can you modify the program so that it will react as if the compactor is full? If you can't, you are going to be a lot thinner really soon! If you need a hint, check the Reference Manual, page 121.

The walls grind to a screeching halt one minute before disaster. But as the others congratulate you and Muk on your brilliant performance, the compactor tips itself on end. Sliding out of control toward the black hole that suddenly appears in the left wall, the four of you hang onto each other for dear life.

“What now? I’m getting sick of BRUTE’s. . . .” Annie’s complaint is smothered by billowing folds of plastic as ACT is dumped into a king-sized baggie.

The bouncy, bruising trip up the exit chute seems to take forever. You tumble over the others like dough in a bread kneader. As the plastic bag that holds you gets closer to the surface, the temperature drops alarmingly. You’ve been inside the N.S.M.F. House so long, you’ve almost forgotten how bone-deep the Arctic cold is!

“I feel like I’ve just been dry-cleaned. Let’s get out of here,” Annie grumbles, clawing at the green plastic when the baggie finally comes to rest.

“Keep it down. With our luck, a brace of BRUTEs will be loitering around the gar-

bage dump,” Sunspot whispers.

He’s almost right. As you climb out of the hole that good old Muk rips in the trash bag, you hear the not-so-distant buzz of a snowmobile motor.

Taking out a pair of collapsible binoculars, Annie wades through a mess of shredded paper and broken bottles and peers over the rim of the nearly full dumpster. “There are four of ’em, and they’re armed with automatic rifles,” she reports in a low voice.

“Good, we’ve got them outnumbered,” Sunspot says with a wide grin.

“How do you figure?” you ask.

“Mukluk and the element of surprise are on our side,” is the mission leader’s response. “Crouch down so they won’t see you, and not a peep till I give the signal.”

Hardly daring to breathe, you clench your chattering teeth tightly and wait. The oncoming roar of the snowmobile’s motor changes to an oily whine, then stops. From the sound of it, the BRUTEs are parked less than 10 feet from the dumpster.

“ACT is probably a bloody pulp by now. That @\$%**&& Tiger Lily had no business sending us out in this weather!” a bass voice growls angrily.

“I’d watch my mouth if I were you, Buckshot — that lady’s ears are everywhere,” a second goon replies. “Besides, some of those

ACT agents are pretty tough.”

“Aw, shut up. ACT agents ain’t nothin’. . . . I wish a bunch of ’em *would* show up. I’d —”

“Now, Muk!” Sunspot thunders.

The husky clears the rim of the dumpster with three feet to spare. You hear a confusion of screams, curses, yelps . . . then quivering silence. Finally, Mukluk utters a short, sharp bark to let you know things are under control.

You have to laugh at the sight that greets you when you climb out of the trash bin. Four big, bad BRUTES are lying huddled together in the snow. The tears that are streaming out of the largest one’s eyes are freezing to his beard-stubbed cheeks.

“Call him off, pleeeaaassee,” one of the BRUTES howls.

Sunspot tosses you one of the rifles they’ve dropped. “Blast them if they move a muscle,” he growls.

You gulp, not liking the greasy feel of the gun. You’re fairly certain you’d never be able to use the thing — not even on a BRUTE. Luckily, you don’t have to face the possibility; the cowards are so scared of Muk they don’t dare shiver when the wind starts to blow.

“You, you, and you — take off your BRUTE coveralls,” the weatherman growls, pointing to the three smallest thugs.

“Hey, man, you can’t do that — we’ll die,” Buckshot protests.

“It’ll serve you right. Those uniforms are going to get us into Tiger Lily’s little hide-away without a hassle. Now move it!”

“We can’t just leave them out here — wouldn’t that be against the ACT Code of Conduct?” Annie asks the weatherman in a low tone.

“We’ll trade clothes with them, and they’ll have the best of the bargain. Our ACT duds are warmer than theirs anyway,” Sunspot murmurs back. “You could wait inside if you prefer, gentlemen.” He raises his voice mischievously.

Buckshot’s face turns ashy gray. “Leave us in the dumpster. We can burrow down to the bottom of the garbage — the shredded paper will keep us warm enough.”

The switch is made in no time flat. The BRUTE suit you get is four sizes too large, but in spite of the loose folds that bag around your knees and elbows, you’re still cold. “You sure were right about these cheapo clothes, Sunspot. BRUTE’s definitely a no-class outfit,” you sneer.

Annie revs up the snowmobile and ACT starts the final leg of the perilous trek to the BRUTE stronghold. “So far, so good,” you mutter to yourself, leaning against the comfortable bulk of your furry computer.

But as the vehicle glides through the

glittering frost of the icebound landscape, you feel a flicker of dread you can't explain. You're too much of a pro to be thrown for a loop by the prospect of a clash with BRUTE, so what is it?

“Hey, Muk, will we all make it out of this icebox in one piece?” you whisper in the husky's pointed ear.

His low whimper chills you to the bone. It's almost as if he's trying to prepare you for something terrible.

CHAPTER

10

“Wait a minute. How do you know we’re headed in the right direction?” the weatherman asks as Annie plows confidently along.

“The BRUTES left a clear trail on the way over,” she replies. “All we have to do is follow their skid marks and we’re home free.”

You stare through the plexiglass shell that encloses the cab of the snowmobile, concentrating on the bleak terrain to keep your thoughts away from your dire premonition. Frowning at the multicolored glory of the sky, you suddenly realize something’s screwy. “Why is it still daylight?” you ask, peeling back the floppy sleeve of the BRUTE coverall to glance at your watch. “Unless this gizmo’s gone crazy, it’s 11:30 P.M.!”

“This is the Land of the Midnight Sun, remember? In July in the Sheenjek Valley,

nightfall is at 12 and dawn breaks about two hours later,” Annie replies.

You’re about to ask about the length of the winter nights when a sheet of blue-green lightning arcs across the horizon. So dazzling that the sinking sun seems pale, it is followed by long, wavering streamers of orange and red. “Somebody’s celebrating the Fourth of July two weeks late,” you mutter in amazement.

“Those fireworks are not man-made, Orion. You’re looking at the aurora borealis — northern lights, most folks call ’em,” Annie breathes in awe.

“That’s highly unlikely,” the mission leader says. “The aurora never occurs while the midnight sun shines.”

Annie’s features take on a familiar, stubborn set. “It’s a darn sight more likely than a Siberian husky stuffed with microchips or a bunch of hoodlums who can control the weather,” she snaps.

The sudden crackle of the snowmobile’s two-way radio cuts through what could become a full-fledged argument. “BRUTE scouting party, call in immediately,” Tiger Lily demands.

“Uh-oh, I was afraid of this. What do I tell her?” Sunspot mutters, nervously fingering the microphone.

Her earlier irritation gone, Annie reaches over to pat his arm. “Just wing it, Sunny.”

“Immediately does not mean five min-

utes or even five seconds, Buckshot. Give me your report now, or I'll have that snowmobile blasted right off the tundra," the lady BRUTE snarls impatiently.

"Er, mission accomplished, Tiger Lily — we're headed home," Sunspot growls in a fairly good imitation of the BRUTE lead scout.

"Tiger Lily? If you don't call me by my official title, I'll feed your tongue to the wolves, you moron!" The woman's tone rises to a screech.

"Try 'Madam,'" Annie mouths silently.

"Sorry about that, *Madam Lily*," the weatherman gulps.

"That's better. Is ACT taken care of?"

"Yes, ma'am, but they got two of us. I —"

"Never mind that," Lily interrupts. "You didn't hurt the dog, did you? I told you I wanted him as a present for my favorite nephew."

"Over my umphd. . . ." Sunspot clamps a hand over your mouth to cut off your angry protest.

"What was that?"

"Snowmobile's giving us some trouble, ma'am — I'll have to overhaul the carburetor when we get back. Signing off for now."

"Not without giving the password, stupid. Come on — I'm waiting."

Sunspot turns gray.

Before he can say the wrong thing, Annie

snatches the microphone. Turning the transmission knob up to the last notch, she blows into it as hard as she can. "That ought to give the witch something to think about," she says grimly, snapping off the radio.

"Wuff, yip-yip, yarl, gleep!" The bizarre and totally unexpected serenade from Mukluk startles you.

"What's wrong, fella?" Annie swivels her head quickly, almost losing control of the vehicle in the process.

An unknown force seems to be controlling the husky's movements; his front paws twitch restlessly and his tail drums a military rhythm against the plastic seat cover. After a moment, he returns to normal, yawning as though nothing out of the ordinary had happened.

"For somebody who wasn't supposed to get attached to a mechanical mutt, you sure are worried. If you don't watch where you're going, we're going to end up in a snowbank." Sunspot's words are sharp, but his tone is gentle. "Our furry friend's okay now — must've been a freak magnetic field playing havoc with his circuits."

"Aren't those walruses up ahead?" You blink your eyes, not sure you can trust them. None of the mammoth mammals you've seen in a zoo ever behaved like the ones 100 feet in front of the snowmobile. They waddle along in

a straight line, and when they reach a certain point, pivot like clumsy soldiers in some weird drill formation.

“Can’t be — we’re too far inland. . . .” Annie trails off as she cranes her neck for a better glimpse of them. “They *are* walruses! If I didn’t know better, I’d swear they were pulling guard duty!”

“What’s to guard?” you query doubtfully. Nothing is in sight except the barren, ice-topped cliffs of the mountain that rises abruptly from the tundra.

“Tiger Lily’s front door,” the weatherman speculates grimly. “The tracks we’re following lead to that overhang off to the left. Could be an entrance to a cave there.”

The last thing you want to fool around with is another cave — particularly one that has 400-pound watch-walruses patrolling in front. “Wish we had some raw fish to bribe them with. They don’t look very friendly.”

As if to prove your point, the blubbery beasts wheel about and head straight for ACT. There must be at least 20 of them; they lumber along with a speed and agility you wouldn’t think possible. Annie slows to a bare crawl as the first one comes within a yard or two of the vehicle.

“Wow — walruses sure are ugly close up,” you mutter. Their beady eyes glitter from the tough, heavy folds of hide on their faces, and those ivory tusks look deadly.

“Whuff, whoo, whee, whur,” Muk barks.

The situation’s far from funny, but you can’t stop a giggle. The husky could almost be counting cadence for the bizarre platoon!

“They belong to Tiger Lily, all right. See the BRUTE insignia on those funny collars they’re wearing?” Anchorage Annie’s eyes snap fire. “The woman ought to be horse-whipped — these animals love freedom, and she has no right to. . . .”

Her lecture ends in a surprised grunt as one of the beasts rear-ends the snowmobile. The impact bounces your head against the plexi-glass shield.

“They’ve got us surrounded, and they’re closing in,” the mission leader says incredulously. “Cut the motor, Annie. Maybe they’re just curious. We don’t want to rile them.”

Smooosh! A walrus to the left barrels into the vehicle with his shoulder and ACT spins across the snow.

Whap! A beast on the opposite side of the blubber rink fields the vehicle neatly and whips it back with a shove of his flippered tail.

“Do you get the feeling that we’re smack in the middle of a game of walrus hockey?” you grunt, bracing yourself for the next blow.

“Yeah, and guess who’s the puck!” Sunspot returns tersely.

“And Tiger Lily’s their coach,” Annie snaps. “Somehow, she’s controlling their movements —”

“Maybe they’re trained to respond to high-frequency signals sent through their collars,” you interrupt. “That would explain why Muk’s been acting so funny — he’s been picking up the —”

The next play cuts off your sentence. Two of the beasts converge at the front fender and upend the snowmobile. If it weren’t for the seatbelts, ACT would be blended like cake batter in a mixing bowl!

“The mobile sled can’t take much more pounding, and if they dump us out, we’ve had it!” Annie gasps.

“Gun it, Annie,” Sunspot shouts. “We’re just going to have to make a run for it.”

The next few seconds are a blur as Annie blasts her way through the walrus guard detail.

“Score one for the home team,” you shout when you see the walruses safely behind you. You feel like cheering, but your happiness is short-lived. . . .

CHAPTER

11

An ear-splitting whine crackles through the frosty silence. “You in the snowmobile — we have a brace of 15-millimeter atomic cannons trained on you. Get out of the vehicle, walk northeast for 25 paces, then stop.” The command issues from a public-address system hidden somewhere on the mountain.

“Why don’t they just kill us on the spot?” Annie wonders.

The weatherman’s features twist into a disgusted expression. “Tiger Lily’s ego. She probably wants to gloat about her great victory over ACT.”

“She’s making a big mistake,” you say shortly. “Once we get inside, we’ll think of a way to stop her.”

“That’s the spirit, Orion.” The mission leader pushes open the snowmobile door and

steps out into the deep snow. “Act dumb and frightened — maybe we can catch them off guard.”

You don’t have to work hard at the frightened part. As ACT walks toward certain capture, needles of fear probe the length of your spine.

Exactly 25 paces ahead, the snow beneath your feet suddenly shifts and you find yourself being sucked downward like sand falling to the bottom of an hourglass. The bruising tumble lands you in the center of a cavern hollowed out of the Arctic permafrost.

“At last we meet, though I can’t say it’s much of a pleasure.” Tiger Lily stands by the railing that circles the platform onto which you and your fellow agents have been dumped. “Is this the best the world-famous ACT can do? Sending a kid, a dried-up old bag, and a has-been TV weather clown to thwart my plans? I don’t know whether to be amused or insulted!”

“Please don’t hurt us, Madam Lily.” You dredge up a few tears to distract the woman. “I — I’m s-s-s-so sccccaaaaarrrrred!” you wail, at the top of your lungs.

“Can this sniveling crybaby be the great Orion I’ve heard so much about? Frisk them, boys — and pay particular attention to that one. Don’t leave anything the sneaky little hacker can possibly convert into a computer terminal.”

The thugs shake you down roughly, then head for Mukluk. Baring his teeth, he backs toward the railing.

“Let the pooch alone. I’m keeping him.”

With a friendly wag of his tail, Muk pads over and nuzzles the woman’s boot.

“You sweet thing — I’m not giving you to my bratty nephew, I’ll adopt you myself,” the lady BRUTE coos.

As she pets and scratches Muk, you suddenly realize that she doesn’t know he’s a robot. She wasn’t able to hear ACT’s conversation in the N.S.M.F. House, and you used Muk’s computer function only where she couldn’t watch.

“Please follow me. We’ll hit the highlights of my modest little facility, ending in the fabulous volcano room where you’re scheduled to die,” Lily says, waving ACT off the platform and smiling as though she’s inviting you to share tea and cookies.

“You can skip the volcano and take us straight to your clothes closet. If your other duds are half as tacky as the leopard-skin number you’re wearing now, we’ll just die laughing,” Annie needles.

“Why you —”

With a snarl of fury, Tiger Lily launches herself at the survival expert, but it’s a bad move. In the scuffle that follows, Annie manages to land a kick to the ribs and a devastating punch to Lily’s right eye. When Sunspot

wades in to break up the fray, the two BRUTES standing behind you pin your arms to your sides. Wiggling gets you nothing but bruised biceps. Mukluk doesn't move a hair. Licking his chops in apparent enjoyment, he lies down to watch.

The weatherman's intervention only makes matters worse — his elbow accidentally connects with the point of the lady BRUTE's chin.

"Don't shoot, you imbeciles, you might hit me!" Lily screams as her troops close in with pistols drawn. "Ho boy, am I ever going to make you two pay for that!"

"The pleasure was worth twice the price," Annie retorts as the guards handcuff her.

"Hang them up over the polar-bear pit. My pets haven't had a good meal since we fed them those two defectors," she purrs, pausing to give the curiously quiet husky a pat on the head. "That's my good doggie — you know your new owner, don't you."

Turning to you, she widens her mouth into an animal grin. "Come with me, Orion, I have special plans for you."

You follow her, knowing that at any minute, Muk will come to the rescue, right?

Wrong! The husky pads obediently along beside Lily, whimpering and nuzzling her hand with his nose. He's acting as if he's switched sides; you worry that something's gone wrong with his circuits.

The BRUTE leader ushers you into a glass-

enclosed computer room that overlooks a horrible scene of torture. Sunspot and Annie dangle helplessly in the air, their kicking feet just beyond the reach of four circling white bears. Tiger Lily thoughtfully turns on a two-way system so you can hear their grunts and growls.

Your fellow agents' faces are tight with fear, and you can see the terrible strain on their shoulder sockets, but neither utters a sound. Your mind is numb with sorrow for them. "If you're going to kill them, do it quick — it's inhuman to let them hang there twisting," you shout at her.

"It's up to you, not me," she says archly, pointing to the computer terminal. "I want to see if you're really as good as your reputation, Orion. The program on the screen controls the bear feeder — make the right entry and one of your cohorts will be saved."

"One of them?" you croak.

"If I were you, I'd dump the old lady, but it's your choice."

You finger the console, staring at the following BASIC program.

Input the following program and try a simulation run to see what will happen. Lines 210 and 220 must be typed as single lines.

PROGRAM 5

```
100 REM BEAR
110 GOSUB 960:GOSUB 970:GOSUB 900
```

```

12Ø PRINT "HOW MANY MORE SECONDS"
13Ø PRINT "SHALL THEY LIVE?"
14Ø INPUT SC
15Ø GOSUB 9ØØ
16Ø VT=SH/2:HT=SW/2-2
17Ø FOR I=SC TO 1 STEP -2
18Ø GOSUB 91Ø
19Ø PRINT " ";I;" "
2ØØ PRINT:PRINT
21Ø IF I=2 THEN PRINT
      "ANNIE DROPPED":GOTO 26Ø
22Ø IF I=1 THEN PRINT
      "SUNSPOT DROPPED":GOTO 26Ø
23Ø WT=WU:GOSUB 92Ø
24Ø NEXT I
25Ø PRINT "THAT'S ALL FOLKS":END
26Ø PRINT "BYE-BYE BEAR MEAT!":END
9ØØ HOME:RETURN
91Ø VTAB(VT):HTAB(HT):RETURN
92Ø FOR WS=1 TO WT:NEXT
96Ø SW=4Ø:SH=24:RETURN
97Ø WU=5ØØ:RETURN

```

The program will run as is on the Apple II+ and IIe. See the Reference Manual, page 122, for changes for all other computers.

Sunspot or Annie — which will it be? If you pick an even number of seconds, Annie will die. Pick an odd number and Sunspot drops.

Get cracking, dumbos. . . . You give yourself a mental slap. Your mind is racing.

Studying the commands intently, you see hope for them both, but is it another of Lily's tricks? You seat yourself at the terminals, knowing that your next moves will either save your friends or make a quartet of hungry bears very happy!

List the program and see if you can figure out a way to modify it so that both Sunspot and Annie will be saved. Hint: The bear feeder is checking for a certain number before it lets one of the victims fall. Can you change the number to something that can save them both? If you're stumped, see the Reference Manual, page 123.

CHAPTER

12

“Who’d have thought a twerp like you could pull that off? You can open your eyes now, Orion. Unfortunately, the clown and the bag lady are safe — for the moment.” Tiger Lily’s oily tone is touched with admiration. She leans closer; you’re nearly knocked over by a heavy wave of the strong perfume she wears. “There’s a place for you in my organization if you want it. Take the job, and you won’t be separated from this cute doggie. I’ll let you play with him whenever you like.”

Muk won’t seem so cute when he rips this place apart, you think smugly. You want to tell Lily what she can do with her job, but settle for, “No thanks — ACT’s got a better retirement plan than BRUTE.” Wiping your sweating forehead on the sleeve of your borrowed BRUTE suit, you peer anxiously down into the

polar pit to make sure the woman isn't lying.

Sunspot and Annie are on a platform over the bear cage. Their legs are shaking, but they seem no worse for the wear. The mission leader raises his hand to you in a grateful "V" salute.

"Take those two to Weather Central. I want everyone to have ringside seats for the finale of the Big Freeze," Madam Lily instructs one of the guards. "I offered you a chance to live, but if you're too stupid to take it, that's your hard luck, you twit!" the lady BRUTE snaps, twining her red-taloned fingers in your hair and yanking hard.

"Any time now, Muk," you whisper, knowing that the husky's superkeen ears can pick up your words. But he doesn't respond the way you expect. His muzzle twists in a snarl, and he gives the heel of your boot a sharp nip.

Shoving you over the sill, Tiger Lily slams the door shut behind her, twisting the knob in a sequence of moves like the combination of a safe. You hear a gentle hissing as the glass-enclosed chamber you just left fills with purple vapor.

"Gas. Poison," the woman responds to your unspoken question. "If that door is opened within the next 48 hours, it spreads through the ventilating system, and anybody still left in this stronghold goes out in a body

bag,” she adds, marching you along the corridor.

“Why would you contaminate your own installation?” you ask in disbelief.

“Standard BRUTE shutdown procedure. We don’t need that particular part of the computer setup anymore, and I’m not about to leave it for a smart-aleck like you to mess around with. Ah, here we are — this is the heart of BRUTE’s weather station.”

She ushers you into a high-ceilinged vault that is bare except for a battered, vintage model mainframe, a bank of monitors set in one wall, and three chairs bolted in place around a six-foot round metal plate in the floor.

“Classy equipment you got here, Lily,” Sunspot comments sarcastically.

“Is this the system that’s supposed to generate the ‘Big Freeze’?” Sunspot continues. “This stuff doesn’t look capable of making an ice cube!”

Lily’s laugh echoes hollowly through the chamber. “You stupid fools have gone to a lot of trouble for nothing. This stuff is junk. Our new equipment is safely tucked away two miles from the South Pole! Even as I speak, BRUTE’s great operation is in progress.”

“Then the world is lost.” Annie’s eyes glaze with a film of tears.

“Poohbah! For the first time since humanity crawled out of the cave, there’ll be

lasting peace, and BRUTE'll kill anybody who thinks different," the evil woman cackles. "I hate to leave before the party gets going, but I've a pressing appointment at 1600 Pennsylvania Avenue in two hours."

"The White House?" you breathe.

Lily nods grandly, the motion rippling her hair down her back in a shining cascade. "By the time I arrive in Washington, the Big Freeze will be halfway through Argentina. If the President doesn't turn over the reins of government, the whole of Florida will be an ice-skating rink. Enough talk — you three sit down." She motions toward the chairs.

The wet rawhide thongs that her henchmen loop around your arms and legs cut cruelly into your flesh.

"If you think they're tight now, wait till they dry out," the lady BRUTE smirks, pulling down a lever on the wall beside the mainframe. The metal plate near your feet slips open a crack; you feel a sudden surge of warmth.

"This installation is built over the heart of a volcano. Since I wouldn't want my guests to catch the sniffles in this drafty old place, I've just turned up the heat. It takes about an hour for the cap to open completely, but you'll be fried meat long before then." Lily snaps her fingers and Muk leaps from the spot where he's been lying.

Now we'll get some action, you think,

waiting eagerly for the dog to rip into Lily and her thugs. He trots off without a backward glance.

“Get back here, you ungrateful mutt!” Annie yells as the husky disappears through the doorway.

“Oops! I almost forgot.” Tiger Lily snatches a hammer one of the thugs hands her and strides over to the mainframe. “It’s not likely you’ll get loose to use this,” she says, trashing the control unit with a flurry of heavy blows. “But this time, I’m dotting all the i’s and crossing every t. So long, suckers.”

As the door of Weather Control Central closes behind the band of cutthroats, the gap between the floor and the volcano cap widens another inch, and the temperature in the room shoots up 15 degrees.

“This is a bad one,” Annie says quietly. Her perspiring face darkens angrily. “And that worthless mutt, Mukluk, didn’t lift a paw to help us!”

“Don’t blame Muk for this mess, Annie. If it hadn’t been for him, we wouldn’t have gotten this far. Besides, he’s only a robot — you can’t expect him to behave like a real ACT agent. I’m sure there’s something wrong with his circuits. If he were okay, he’d have torn those BRUTEs apart,” you defend. But although your heart knows the dog would never betray ACT, your head tells you differently.

For whatever reason, Muk has gone over to the other side.

Sunspot's bald head gleams in the ominous glow coming through the floor. He sucks in the superheated air and grins weakly. "Too bad we don't have any marshmallows."

You drop your chin to your chest. This is probably the TV weather clown's last joke, and you can't even manage one feeble chuckle.

CHAPTER

13

Snowdrifts . . . the brisk chill of the November wind against your cheeks . . . heaping mounds of orange sherbet. . . . Your feverish brain fights bravely against the suffocating waves rising from the heart of the volcano.

SMACK! BUMP! The noise outside interrupts your mental dive into a pool of ice cubes.

“What’s that, the devil coming after us?” Annie can barely move her parched lips.

“I sure hope so — his place’ll be a vacation after this,” Sunspot gasps.

WHUFFLE, BAM — WHOOSH! The door slams against the wall and a fury of fur-covered steel husky barrels through. Clamped in his teeth is a ragged shred of polyester leopard skin.

“I knew you wouldn’t let us down, Muk!” You want to cry for joy, but you’re afraid the

tears would boil on the way down your cheeks. “The lever — hit the lever,” you command feebly.

The robodog’s body arches through the air in the most beautiful curve you’ve ever seen. As his shoulder smashes into the gear, the volcano cap grumbles back into place.

“And to think I doubted you. I’ll make it up to you, good buddy — I promise,” Annie sobs gratefully as the dog drops the tattered fabric at her feet and chews loose her rawhide bindings.

“I think Tiger Lily might need a new jumpsuit,” Sunspot chuckles. “Have you ever seen a greater act in all your life? Muk was just waiting to catch her off-guard.”

As soon as you’re free, you bound over to the bank of monitors. One of the outside cameras sweeps over a scene that makes you double up with laughter. “Hey, Muk had help — the whole bunch of BRUTES has been captured by the walruses!”

“And I hope one of ’em is sitting on top of that sleazy leopard-lady.” Annie foxtrots gleefully around the volcano cap.

“There’s a shot of a helicopter hovering above the mountain — she must’ve gotten away.” Sunspot scowls.

Muk whimpers and drops his head in apology. “Don’t worry, boy. If we can contact Hot Wheels, he’ll catch up with her.” The mission leader dashes over to the mainframe and

pushes aside the ruined control unit. "There's got to be a radio somewhere around here — "

"Wuff!"

The three of you stare at the husky in amazement.

"Naw, can't be. . . ."

"I don't believe it. . . ."

"K-9 didn't. . . ."

K-9 certainly did. The short-wave transmitter is concealed in one of Mukluk's pointed ears, a receiver in another. In two shakes, Hot Wheels' voice comes crackling into the room.

"We had given you up for lost, crew. . . . Boy, am I glad to hear from you," the acting chief yells in delight. "What's the scoop up there?"

"Everything's under control, H.W.," Sunspot starts. "Mukluk and the walruses rounded up most of the BRUTES, but —"

"Walruses? What the blue blazes are you talking about?"

"It's a long story, but listen up — Tiger Lily is on her way to the White House in a helicopter. Stop her, will you?"

"No sooner said than done. And we'll have a rescue crew there to pick you up in less than an hour. Thank goodness you were able to put the BRUTE weather control gadgets out of commission!"

"Er — well, uh, we haven't taken care of that yet, sir. They're not using this setup anymore. You see, BRUTE's generating the Big

Freeze from a new system at the South Pole, and —”

“Holy moley — that explains why the situation on the other side of the equator is so bad! The Big Freeze has just passed the Falkland Islands and it’s coming on strong. The government of Brazil is meeting now to decide how best to save the coffee crop.” There is a static-filled pause before he continues, “Are you telling me there’s no way to stop it?”

“Theoretically there is,” Sunspot answers. “If we had satellites stationed around the world at 30 degrees south latitude, we could counterattack with a heat wave. When the two air masses meet, there’d be a thermal clash, and the cyclones it would produce could spin the cold front harmlessly into the upper atmosphere.”

“Well, what are you waiting for? Can’t you use the satellite system and the controls there to do it?”

You kneel beside Muk and clear your throat nervously. “Orion here, H.W. Tiger Lily smashed the computer control panel.”

“No matter what it takes, fix it!” Even through the magnetic interference you can hear despair in the acting chief’s voice as he continues, “You are the only hope we have left.”

“We’ll do the best we can, sir.” You sign off.

The weatherman is already examining the mainframe. “The keyboard looks okay, but the

rest of the terminal is a wreck,” he says.

“I can’t see what all the fuss is about — just hook up the husky!” Annie props her hands on her hips and glares at you impatiently.

But it’s easier said than done. Because Muk has no keyboard, you have to spell every command out loud. After 15 minutes of very hard work, all you and Sunspot have accomplished is activating the spy beam on the satellite that hovers over South America. It sends a signal to the mainframe’s monitor, and you stare in horror at the tide of white slowly advancing up the continent.

“This is too slow. Unless I can key in the commands, we’ll never make it,” you groan. “Besides, Muk doesn’t have enough memory to handle the program I have in mind.” There is a solution, but it’s so awful your mind refuses to consider it.

A thoughtful gleam comes into the mission leader’s eyes. “The computer room over the bear pit! We could salvage parts —”

“No good,” you interrupt. “Tiger Lily filled it with nerve gas. We’d be dead before we got one screw loose.”

Sunspot stares over at Muk. “If we cut off all the other functions, we could wire him between the keyboard and the mainframe, but. . . .” He trails off, then takes a deep breath and says sadly, “You know we’ve got to do it, don’t you, Orion?”

The word “yes” refuses to come from your lips. You’re too miserable for anything more than a quick nod. “Here, Muk, come to me, boy,” you whisper.

“Wwaaaaaiittt just a cotton-picking, flea-flicking minute! You’re not suggesting that we dismantle this dog, are you?” Annie yells at the top of her lungs.

“It’s the only way, Annie,” Sunspot says softly, putting his arm around her shaking shoulders as she starts to cry. “K-9 can fix him up when we get back to the Canadian outpost. He’s just a robot, you know.”

“He’s more than a robot. . . . I told you before, he’s a miracle!” Her sobs quiet to an occasional hiccup. “Better than that — he’s our friend. And if you fiddle around with him, he’ll never be the same again.”

In your heart of hearts, you know she’s right, but there’s no other choice. “Let’s get it over with,” you say dully.

Less than 10 minutes later, what was once a gallant husky is hooked up to the main-frame. You hold onto your tears tightly, telling yourself that he’s asleep, but you know that the part of Mukluk you all loved so much is gone forever.

Sunspot’s firm hand on your arm steadies you. “Come on, Orion. We have a job to do.”

You straighten your sagging shoulders and key in the following BASIC program.

Input the following program. Lines 120, 130, 190, 220, 410, 430, 450, 470, 560, 620, 940, 950, and 960 must be typed as single lines.

PROGRAM 6

```
100 REM CYCLONE
110 GOSUB 960:GOSUB 970
120 A$=" ":B$=" ":FOR I=1 TO SW-3
    :GOSUB 820:NEXT I:X$=A$
130 A$="-":B$="-":FOR I=1 TO SW-3
    :GOSUB 820:NEXT I
140 AH=1:BH=SW-1:AV=1:BV=SH-1
150 AC$="A":BC$="B"
160 GOSUB 900
170 QS=INT(SH/4):VT=QS:HT=1:GOSUB 910
180 PRINT A$
190 GOSUB 940:IF KY$ <> NU$ THEN
    K$=KY$:GOTO 230
200 GOTO 190
210 GOSUB 450
220 GOSUB 940:IF KY$ <> NU$ THEN
    K$=KY$
230 IF K$ <> "D" THEN 300
240 FOR I=1 TO 2
250 GOSUB 450
260 AV=AV+1:IF AV>SH-1 THEN AV=SH-1
270 GOSUB 410
280 GOSUB 500
290 NEXT I
300 IF K$ <> "U" THEN 370
310 FOR I=1 TO 2
```

```

32Ø GOSUB 45Ø
33Ø AV=AV-1:IF AV<1 THEN AV=1
34Ø GOSUB 41Ø
35Ø GOSUB 5ØØ
36Ø NEXT I
37Ø GOSUB 47Ø
38Ø BV=BV-1:IF BV=QS THEN 62Ø
39Ø GOSUB 43Ø
4ØØ GOTO 21Ø
41Ø VT=AV:HT=AH:GOSUB 91Ø
    :PRINT AC$;
42Ø RETURN
43Ø VT=BV:HT=BH:GOSUB 91Ø
    :PRINT BC$;
44Ø RETURN
45Ø VT=AV:HT=AH:GOSUB 91Ø
    :PRINT " ";
46Ø RETURN
47Ø VT=BV:HT=BH:GOSUB 91Ø
    :PRINT " ";
48Ø RETURN
5ØØ FOR WT=1 TO WU:GOSUB 94Ø
51Ø IF KY$ <> NU$ THEN K$=KY$
52Ø IF K$ <> "F" THEN 6ØØ
53Ø VT=AV:HT=2:GOSUB 91Ø:PRINT A$;
54Ø GOSUB 92Ø
55Ø GOSUB 91Ø:PRINT X$;
56Ø IF ((K$<>"F")+(AV<>BV))
    THEN 59Ø
57Ø VT=SH-2:HT=1:GOSUB 91Ø
58Ø PRINT "YOU SAVED THE DAY!":END
59Ø K$=" "
6ØØ NEXT WT
61Ø RETURN

```

```

62Ø VT=SH-2:HT=1:GOSUB 91Ø
      :PRINT "BRUTE WINS!"
63Ø END
82Ø A$=A$+B$:RETURN
9ØØ HOME:RETURN
91Ø VTAB(VT):HTAB(HT):RETURN
92Ø FOR WS=1 TO WT:NEXT
94Ø KY$=NU$:KY=PEEK(-16384)
      :IF KY<128 THEN RETURN
95Ø KY$=CHR$(KY-128):POKE -16368,Ø
      :RETURN
96Ø SW=4Ø:SH=24:NU$=CHR$(Ø)
      :RETURN
97Ø WU=2Ø:RETURN

```

The program will run as is on the Apple II+ and IIe. See the Reference Manual, page 124, for changes for all other computers.

“It’ll be sort of like a video game, Sunspot,” you explain as you finish the last line. “I’ll move the satellite down below the 35th parallel. If we get to the BRUTE satellite and blast it, we’ve won one round. But if BRUTE breaks through our defense, we have to reset and try again. If we can knock out five of their satellites, we’ll be okay.”

“The 35th parallel is the absolute limit,” he warns. “Play carefully, Orion — the stakes are high.”

You shift to a more comfortable position and flex your fingers before you give the RUN

command. “This one’s for Mukluk!” you whisper.

When you run the program, you will see a line on the screen that represents the 35th parallel. Your satellite will appear at the top of the screen as an “A.” The BRUTE satellite will appear at the bottom as a “B.” The object is to get your satellite even with the BRUTE satellite. Then fire at it. You type “D” to move your satellite down. Type “U” to move your satellite up. Hit the “F” key to fire. Warning: Start your satellite down immediately by hitting “D” — the BRUTE one moves very fast! If you can successfully knock out five satellites, you’ll save the day. You must use capital letters.

You sag back in the chair, limp with exhaustion. The grim game has taken every bit of energy you have.

“Great work, Orion!” a familiar voice booms.

You glance up and grin tiredly. You’ve been concentrating so hard you didn’t notice when Hot Wheels and the rescue team arrived.

“Unfortunately, we didn’t do as well as you. At the last minute, Tiger Lily eluded the trap we had set up at the White House.” The acting chief rubs the red stubble on his chin thoughtfully. “She’s a dangerous lady, all

right — and I've got a hunch ACT hasn't seen the last of her."

You close your ears to their relieved voices. Reaching over to stroke what's left of your furry friend, you swallow the lump in your throat.

"He was something special, wasn't he?" K-9 walks away from the conversation the others are having and comes to stand beside you. "I don't think I'll try to fix Muk — we can retire him to the ACT Hall of Honor," he says gently.

You nod, looking straight ahead at the screen where the cyclones you and the husky generated are mopping up the last of the Big Freeze.

A shadow at the bottom of the monitor catches your attention. You rub your eyes, not believing what you think you see.

K-9 stares at you. "What is it, Orion? What do you see?"

"Let's have a victory celebration!" you yell, your happy heart shining in your eyes. Is it real? You're not sure.

But somehow you see a dancing image on the computer screen. It seems to look straight at you for a long moment, then with a farewell flick of his bushy, curved plume, the spirit of Mukluk bounds into the atmosphere, chasing after the tail of the whirlwind.

REFERENCE MANUAL

Note to user: The programming activities in this book have been designed for use with the BASIC programming language on the IBM PC and PCjr, Apple II Plus or Apple IIe (with Applesoft BASIC), Commodore 64, Vic 20, Atari 400/800, Radio Shack TRS 80 Level 2 or greater, and the Radio Shack Color Computer. Each machine has its own operating procedures for starting up BASIC and editing programs. So make sure you're in BASIC before trying to run any of these programs, and check your user manual for instructions on how to edit lines. Also make sure you type NEW before entering each program to clear out any left-overs from previous activities.

The version of the program included in the text will run as is on the Apple. You will have to modify the programs for the other computers. All the instructions you need are in this manual.

Even if you're using a computer other than

the ones mentioned, the program may still work — since it's always written in the most generalized BASIC.

If you need help with one of the computer activities in the *Micro Adventure*, or want to understand how a program works, you'll find what you need in this manual.

Naturally, programs must be typed into your computer *exactly* as given. If the program should run on your computer but you're having problems, do a list on the program and check your typing before you try anything else. Even a misplaced comma or parenthesis might cause a syntax error that will prevent the whole program from working.

TERMS YOU NEED TO KNOW

Computer experts have a special “language” they use when talking about programs. Here are some common terms that will help you understand the explanations in this manual.

Arrays are groups of two or more logically related data elements in a program that have the same name. However, so that the individual elements in the array can be used, each is also identified by its own address (called an index by programmers). You can think of an array as an apartment building. One hundred people might live at the Northwest Apartments (or 100 pieces of information might be stored in the NW Array). But each unit within

the building has a number (like Apt 14) so it can be located and receive mail. In the NW Array, 14 could be the index to find a particular piece of information, and would be written NW (14). If you put the 26 letters of the alphabet into an array called Alpha\$, then Alpha\$(2) would equal "B" because B is the second letter of the alphabet.

ASCII (pronounced *asskee*) is the standard code used by most microcomputers to represent characters such as letters, numbers, and punctuation.

ASC is a function in BASIC that will supply a character's ASCII code. For example ASC("A") will give you the number 65.

Bugs are errors or mistakes in a program that keep it from doing what it's supposed to do. Some of the programming activities in this book will ask you to find and fix a bug in the program so that it will work correctly.

Functions are ready-made routines that perform standard calculations in a program. It's sort of like having a key on a calculator that computes a square root or percentage of a number. The programming language BASIC comes with a number of standard functions to perform certain tasks. For example, the function SQR(x) will find the square root of any number when x is replaced by that number. You might want to check the BASIC manual

that came with your computer to see which functions are available on your system.

INT is a function that changes any number that you supply into a whole number or integer. For example `INT(4.5)` will return the value 4. For numbers greater than 0, `INT` just throws away any fractions and supplies you with the whole number.

LEN is a function that tells you the number of characters in a string of letters, numbers, or other symbols. For example, if a variable string called `A$` contained “STOP” then `LEN(A$) = 4`.

Loops are sections of programs that may be performed a specified number of times or until certain conditions are met. For example, if you wanted to write a program that would count from 1 to 100, a loop could be used to keep adding 1 to a counter variable until the number 100 was reached. Loops are most commonly formed with `FOR/NEXT` statements or `GOTO` commands. You’ll find many examples of these in the programs in this book.

Random Number Generator This function, which is called `RND` in `BASIC`, lets you generate numbers at “random” just as though you were throwing a set of dice and didn’t know which number was going to come up next. In most home computers, the `RND` function returns a fraction between 0 and 1. To get num-

bers in a larger range, the program must multiply the fraction by a larger number. For example, `RND * 10` will produce numbers between 0 and 10.

REM This command is used to tell the computer that whatever is on a particular line is just a comment and should not be executed.

An example might look like this:

```
10 REM THIS PROGRAM DOES A  
COUNTDOWN
```

Strings are groups of one or more letters, numbers, or other symbols that are treated as a unit. In the English language, a collection of letters that make up a word can be thought of as a string. In a program, the information in a string is often enclosed in quotation marks to let the computer know that the symbols are to be treated as characters. In the string "123" the program is dealing with the characters 1, 2, and 3, not the larger number 123. The computer is storing these as the ASCII values for 1, 2, and 3 which are 49, 50, and 51. A string that is empty and has no characters in it is called a null string and is represented as "".

Subroutines are parts of a program or a sequence of instructions called by a program to perform a general or frequently used task. In some of the programs in this book, subrou-

tines are used to position the cursor or get input from the screen.

Variables are names used to represent values that will change during the course of a program. For example, a variable named D\$ might represent any day of the week. It may help you to think of a variable as a storage box, waiting to receive whatever information you want to put in. Variables that deal with strings of symbols are always followed by a dollar sign. Variables that end in a percent sign always hold integers (the whole numbers like 1, 2, 3, 500). Variables with a pound sign or no special character at the end hold numbers that may contain fractions. The number of characters allowed in a variable name varies from computer to computer.

MASTER LISTS

The programs in the text are designed to run on the Apple II+ and IIe, but they will run on the other computers with certain modifications. Below are Master Lists for each computer. These lines of programming customize the programs in the text for each computer. You will not need all of the lines in the Master List for each program. This Reference Manual will tell you which lines of the Master List are needed for each program.

If you can save programs on a disk or cassette, you can type in the Master List for your

computer, give it a name, and save it. Then when you type in a program, simply load the Master List first, then type in the program from the text. The extra lines will not hurt.

Master List for Commodore 64

```
800 XC$=MID$(A$,SB,SE):RETURN
820 A$=A$+B$:RETURN
900 PRINT CHR$(147);:RETURN
910 POKE XT,HT-1:POKE YT,VT-1:
    POKE FG,0:SYS PL:RETURN
920 FOR WS=1 TO WT:NEXT:RETURN
930 RD=INT(RX*RND(1)+1):RETURN
940 GET KY$:IF KY$="" THEN KY$=NU$
950 RETURN
960 XT=782:YT=781:FG=783:PL=65520:
    SW=40:SH=24:NU$=CHR$(0):RETURN
```

Master List for VIC-20

```
800 XC$=MID$(A$,SB,SE):RETURN
820 A$=A$+B$:RETURN
900 PRINT CHR$(147);:RETURN
910 POKE XT,HT-1:POKE YT,VT-1:
    POKE FG,0:SYS PL:RETURN
920 FOR WS=1 TO WT:NEXT:RETURN
930 RD=INT(RX*RND(1)+1):RETURN
940 GET KY$:IF KY$="" THEN KY$=NU$
950 RETURN
960 XT=782:YT=781:FG=783:PL=65520:
    SW=22:SH=22:NU$=CHR$(0):RETURN
```

Master List for Radio Shack Color Computer (Requires Extended BASIC)

```
800 XC$=MID$(A$,SB,SE):RETURN
```

```

82Ø A$=A$+B$:RETURN
9ØØ CLS:RETURN
91Ø HZ=INT(HT-1+(VT-1)*32+Ø.5):
PRINT @HZ,"";:RETURN
92Ø FOR WS=1 TO WT:NEXT:RETURN
93Ø RD=INT(RND(RX)):RETURN
94Ø KY$=INKEY$:IF KY$="" THEN
KY$=NU$
95Ø RETURN
96Ø NU$=CHR$(Ø):SW=32:SH=16:RETURN

```

Master List for Radio Shack TRS-80

```

8ØØ XC$=MID$(A$,SB,SE):RETURN
82Ø A$=A$+B$:RETURN
9ØØ CLS:RETURN
91Ø HZ=INT(HT-1+(VT-1)*64+Ø.5):
PRINT @HZ,"";:RETURN
92Ø FOR WS=1 TO WT:NEXT:RETURN
93Ø RD=INT(RND(RX)):RETURN
94Ø KY$=INKEY$:IF KY$="" THEN
KY$=NU$
95Ø RETURN
96Ø NU$=CHR$(Ø):SW=64:SH=16:RETURN

```

Master List for IBM PC and PCjr

```

8ØØ XC$=MID$(A$,SB,SE):RETURN
82Ø A$=A$+B$:RETURN
9ØØ CLS:RETURN
91Ø LOCATE VT,HT:RETURN
92Ø FOR WS=1 TO WT:NEXT:RETURN
93Ø RD=INT(RX*RND(1)+1):RETURN
94Ø KY$=INKEY$:IF KY$="" THEN
KY$=NU$

```

```

95Ø RETURN
96Ø SW=4Ø:SH=24:NU$=CHR$(Ø):RETURN

```

Master List for Atari

```

8ØØ XC$=A$(SB,SB+SE-1):RETURN
82Ø A$(LEN(A$)+1)=B$:RETURN
9ØØ PRINT CHR$(125);:RETURN
91Ø POSITION HT+1,VT-1:RETURN
92Ø FOR WS=1 TO WT:NEXT WS:RETURN
93Ø RD=INT(RND(Ø)*RX+1):RETURN
94Ø K=PEEK(KZ):IF K=255 THEN
KY$=NU$:RETURN
95Ø GET #1,KW:KY$=CHR$(KW):
POKE 764,255:RETURN
96Ø NU$=CHR$(Ø):SW=37:SH=24:
KZ=764:KW=Ø:OPEN #1,4,4,"K:"
:RETURN

```

PROGRAM 1: DECODER

Modifications for Other Micros

For all computers except the Apple II+ and IIe, use lines 800 and 900 from the Master List for your computer.

Also make these changes on the following computers:

Atari:

```

1Ø5 DIM A$(128),A2$(26),AM$(128),
P$(1),XC$(1)

```

TRS-80 and Color Computer:

```

1Ø5 CLEAR 1ØØØ

```

What the Program Does

This program is a very special decoder program. The same program will encode and decode messages without any changes. Type in a message. The program decodes it. Type in the coded message. The program decodes it. You also select a number that is used to make your decoding session unique.

How the Program Works

This type of code is known as alphabetic substitution. To encode the message, each letter of the alphabet is changed to exactly one other letter. There are two steps to our substitution in this program.

The first step in our code process is to add a number to the ASCII value of each letter of the coded message. That is the secret number. It must be between 1 and 26 because that is how many letters there are in the alphabet. This addition might get us into trouble if we came up with letters larger than “Z”, so the program “wraps around” the alphabet (line 250). “Z” + 1 is “A”, “Z” + 2 is “B”, and so on. The next step in the coding is to substitute the letters for the code.

How is this done? First, notice the variable A2\$ (line 110). It is the substitution alphabet. What do you notice about it? It is the alphabet backwards. That is the part of the trick that allows us to both encode and decode with one program. Here’s why: If you take an “A”,

it is the first position of the real alphabet. The first letter of the substitution alphabet is "Z", so "Z" is substituted for "A". Now, if you choose "Z", which is that LAST letter of the regular alphabet, what is the last letter of the substitute alphabet? "A", right? This works for "B" and "Y" and "C" and so on.

PROGRAM 2: DOGSLED

Modifications for Other Micros

For all computers except the Apple II+ and IIe, use lines 900 and 910 from the Master List for your computer.

Also make these changes on the following computers:

Atari:

```
105 DIM Y$(5)
```

TRS-80 and Color Computer:

```
105 CLEAR 1000
```

What the Program Does

This program requires you to deduct the correct value of three variables. You need to guess the speed the sled will travel, the weight of the sled with its passengers, and the steering ability. After you have selected all those values, the program will automatically calculate the temperature that the robodog can be kept at with the remaining energy. It takes en-

ergy to steer, to carry more weight, and to go faster. All remaining energy is converted to heat. Too much heat, the dog overheats; too little heat, the dog freezes.

Sound easy? Well, there are a few catches. You can remove only so much weight before someone falls off the sled. If you don't put enough energy in steering, you will fall off the path, and if you don't go fast enough, you won't make the deadline. Good luck!

How the Program Works

At the beginning of the program, two arrays are read from data statements. These variables describe the initial and maximum allowed values for each of the system functions (speed, weight, steering, temperature). Next the initial (and current) values are displayed. The subroutine at line 500 prints out the names of the functions. The new data is input in lines 250 to 280. Lines 290 to 320 calculate the energy requirements for the selected values. Lines 360 to 400 analyze the results of your choices and print the appropriate warnings.

PROGRAM 3: EDOC

Modifications for Other Micros

For all computers except the Apple II+ and IIe, use lines 800 and 900 from the Master List for your computer.

Also make these changes on the following computers:

Atari:

```
105 DIM S$(20),P$(40),XC$(1)
```

```
106 DIM S1$(1),P1$(1),A$(20)
```

TRS-80 and Color Computer:

```
105 CLEAR 2000
```

What the Program Does

What is the secret to accessing this strange machine? It is obvious that the password is "BRUTE" — maybe too obvious. What is all that extra code? Why not a simple comparison of the password entered (P\$) with the password in the code (S\$)? Something strange is going on!

How the Program Works

Look at the statement at line 160. That's where all the strange code begins. It is some kind of loop. It is processing P\$, the password you entered. WAIT! It is moving backwards through the string! It is starting at the end of the string and moving back to the beginning, yet S\$, the password in the program, is being processed forward! What's going on? The last letter of P\$ is compared to the first letter of S\$. . . something is backwards here! Is there another way to enter the password so

that you can gain access? Reverse gears and give it a try!

PROGRAM 4: GARBAGE

Modifications for Other Micros

For all computers except the Apple II+ and IIe, use lines 800, 820, 900, 910, and 960 from the Master List for your computer.

Also make these changes on the following computers:

Atari:

```
105 DIM A$(100),L$(100),B$(1)
106 DIM BL$(100),XC$(100),NU$(1)
970 WU=100:RETURN
```

IBM PC and PCjr:

```
970 WU=250:RETURN
```

Radio Shack Color Computer:

```
105 CLEAR 2000
970 WU=400:RETURN
```

TRS-80:

```
105 CLEAR 2000
970 WU=100:RETURN
```

VIC-20 and Commodore 64:

```
970 WU=100:RETURN
```

What the Program Does

Will your programming skills be able to

get ACT out of a potentially VERY TIGHT squeeze? How can you keep the garbage compactor from doing away with the team?

This program draws a picture of the walls of the trash compactor. This is drawn as a box that gets progressively smaller. When it finally reaches ACT, both the program and ACT are done! You must find the place in the code that will keep the compactor from mashing ACT — but where?

How the Program Works

The program begins by clearing the screen and initializing some variables in the subroutines. Lines 120 and 130 are important. Line 130 initializes a maximum load. The maximum load tells the program just how small the box can get before the program stops. Right now it is set to zero, so the compactor walls can squash right down to nothing! We'll see where the Maximum Load (ML) is used later in the program.

There is a FOR-NEXT loop at line 240. This loop controls the size of the box. It starts at almost the full screen size and ends at nothing in the middle of the screen. XC\$ is a line of dashes. XC\$ becomes shorter and shorter as the box gets smaller. It is used to make the top and bottom of the box. In line 340 we see the variable ML (we said we'd get back to the Maximum Load!). At this point ML is incremented (increased) by one. If it is bigger than

half the screen, the maximum load has been reached and the compactor will stop. Otherwise it will keep on compacting.

Stop and think what's happening. There is a loop that goes from 1 to half the screen width (HF). Inside that loop there is a variable (ML) that starts at zero and is incremented once each time through the loop. As the loop goes 1, 2, 3 . . . , ML goes 1, 2, 3. Since the loop variable goes only to HF, and ML is the same number, ML won't ever get bigger than HF. But what if ML started at a number bigger than zero (say five): Then as the loop went 1, 2, 3 . . . , ML would go 6, 7, 8 . . . , and it WOULD be able to get bigger than HF. Make ML bigger than zero (try 5) and watch what happens!

PROGRAM 5: BEAR

Modifications for Other Micros

For all computers except the Apple II+ and IIe, use lines 900, 910, 920, and 960 from the Master List for your computer.

Also make these changes on the following computers:

Atari:

```
105 DIM A$(100),L$(100),B$(1)
106 DIM NU$(1),XC$(1)
970 WU=400:RETURN
```

IBM PC and PCjr:

97Ø WU=6ØØ:RETURN

TRS-80 and Color Computer:

1Ø5 CLEAR 2ØØØ

97Ø WU=45Ø:RETURN

TRS-8Ø:

1Ø5 CLEAR 2ØØØ

97Ø WU=25Ø:RETURN

VIC-20 and Commodore 64:

97Ø WU=4ØØ:RETURN

What the Program Does

This program decides the fate of Sunspot and Annie! You choose how many seconds they will live. The clock then begins to count down by two seconds at a time. If the clock hits ONE second, then Sunspot is dropped. If the clock strikes TWO seconds, then Annie is dropped. This is quite a problem. If you choose an even number of seconds, say eight, then the clock counts 8, 6, 4, 2 — and there goes Annie. If you choose an odd number, the clock counts 9, 7, 5, 3, 1 — and Sunspot is dropped. There seems no way out of this predicament!

How the Program Works

You have been told that there is NO WAY to change the program itself. It is locked and protected. You cannot change the code. Only

if you can choose the right response to its question can you save your friends. Study the program. Look at the FOR-NEXT loop in line 170. See how it counts from the number of seconds you give it down to one. The STEP - 2 means that it counts DOWN two at a time. Is there any way to start the clock in such a way that it NEVER counts a one or a two? What if it thinks that it already counted down and never sees a one or a two? You can't start at a number one or larger, because one of your friends will die if you do. What if you declare the fate of your friends to happen immediately, not to wait at all? If I starts at less than 1 and counts down, will it ever become 1? 2? No. It can't. It can only get smaller! Use your programming skill to answer the question, and see if your talents can save your friends!

PROGRAM 6: CYCLONE

Modifications for Other Micros

For all computers except the Apple II+ and IIe, use lines 820, 900, 910, 920, 940, 950, and 960 from the Master List for your computer.

Also make these changes on the following computers:

Atari:

```
105 DIM A$(80),B$(1),X$(80),AC$(1),  
    BC$(1)
```



```
106 DIM KY$(1),NU$(1),K$(1),XC$(1)
970 WU=20:RETURN
```

IBM PC and PCjr:

```
970 WU=20:RETURN
```

TRS-80 and Color Computer:

```
105 CLEAR 2000
970 WU=15:RETURN
```

Commodore 64 and VIC-20:

```
970 WU=15:RETURN
```

What the Program Does

Cyclone is a game. You are ACT, shown on the screen as a letter "A". BRUTE is a letter "B". You can move up or down on the screen by using the U key or the D key. You can fire at BRUTE with the F key. You move twice as fast as BRUTE *until you fire!* Then you must quickly choose Up or Down again to slow BRUTE down. You must move after you fire unless you hit BRUTE! Don't let BRUTE reach the 35th parallel line! If you do, ACT and the world as you know it are doomed!

How the Program Works

From line 110 to line 160 there is setup information. X\$ is a string of spaces and A\$ is a string of dashes. The starting positions for ACT (AH,AV) and for BRUTE (BH,BV) are set, as well as the letters "A" and "B" to rep-

resent the two sides. Next the program waits for a keypress to start the game (lines 190, 200).

The game starts by checking for an Up or Down command. If it gets one, it erases the "A" and moves it up or down one place.

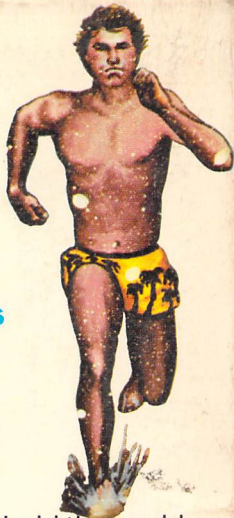
Then the program checks to see if a fire command is being issued. It loops a number of times. The actual number of times is set by the value assigned to WU in line 970. When you fire, a line of dashes(A\$) is put on the screen, then erased with a line of spaces(X\$). If you fire and hit BRUTE, you win the game. If you miss, the program keeps moving BRUTE up *very* quickly until you give another Up or Down command. It keeps checking BRUTE's position in line 380 to see if BRUTE has made it to the critical parallel line. If it has, then the unfortunate message is printed at line 620.

You may wonder why BRUTE moves so quickly after you fire at it. (Wouldn't you move quickly if someone were shooting at you?) The reason is because the loop checking for a Fire command occurs only *after* you move. It is that loop that slows BRUTE down.

Limber your fingers! Get ready to move Down or Up and FIRE!

EARTH'S CONDITION: FROZEN

Your code name is Orion,
and you are about to embark
on a terrifying journey across
frozen wastelands. Only you
can stop the onslaught of
frigid weather that threatens
to destroy the world.



BRUTE is using thermal satellites to hold the world hostage. As the computer whiz on the ACT (Adventure Connection Team), your skills are crucial in breaking BRUTE's chilling control over the earth.

You must use your micro to:

- knock out killer polar bears
- escape the enemy's deadly ice prison
- whip up a storm to block a BRUTE blizzard

The Big Freeze is more than a great adventure story. It's danger, action, suspense—plus computer programs for you to run.

The programs will run in BASIC on the IBM PC, PCjr., APPLE II+, IIe, IIc, COMMODORE 64, VIC-20, ATARI 400/800, and RADIO SHACK COLOR COMPUTER.

Includes a reference manual with user tips and explanations of the programs!



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